Reader's Digest

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EIGHTH YEAR OF PUBLICATION

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George Bernard Shaw's Reply

THE cry of "Author! Author!" is almost invariably heard somewhere in the tumult of a first night at the theater. The folly of playwrights in letting their haggard, clay-cheeked faces be seen is only accentuated by the fact that they almost never make a speech they can remember with comfort the next morning.

Few can hope to be as nimble-witted as Mr. Shaw who, when hauled into just such a curtain-speech, was interrupted by a bellicose voice from the gallery saying:

"Shut up, Shaw; your play is rotten."

"You and I know that," he replied. "But who are we among so many?"

ALEXANDER WOOLLCOTT in *Collier's Magazine*

Anecdotes of Repartee Solicited

THE READER'S DIGEST solicits from its readers anecdotes of repartee similar to that printed above. These anecdotes should deal with well-known or historical persons, and must be brief, pithy, and well authenticated. Contributions should be typewritten, and should give the source (publication, author, etc.) if quoted from a published work. THE READER'S DIGEST will pay $5 for each anecdote judged worthy of printing. Unused contributions will not be returned or acknowledged unless by special request. Address the Contest Editor, THE READER'S DIGEST, Pleasantville, New York.

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The Diamond Crisis

Condensed from the Illustrated London News (February 16, '29)

Signor Guglielmo Ferrero

Author of "The Greatness and Decline of Rome," "Ruins of Ancient Civilization," etc.

AMONG all the crises with which our unfortunate planet is tormented, there is, it appears, a diamond crisis. Had it not been for the heroic efforts of South African diamond magnates, we might have seen in the near future, peasants working in the fields with tiaras in their hair. An over-production of diamonds!

Diamonds have long been looked upon as the rarest and most beautiful among gems, symbols of radiance and rarity, combining the beauty of the emerald, the sapphire, and the ruby. In earlier centuries, nearly all diamonds came from India. They were very rare and served to heighten the prestige of religion, of sovereignty and power. They flashed from the ceremonial robes worn by kings, princes, princesses, and high priests, persons who were obliged by their offices to appear in public on certain occasions shining like suns.

Diamonds began to become one of the many objects of luxury coveted by the rich during the 18th century, after the discovery of the Brazilian mines. Brazil is the India of South America, and in the 17th and 18th centuries was known as a mining country producing precious stones and metals. At the beginning of the 19th century were discovered, in what are today called the States of Minas Geraes and Bahia, rivers which flowed on veritable beds of diamonds. Men worked the beds of these rivers by means of simple machinery, pumps, and waterwheels, but with very great energy. Thanks to the richness of these deposits

and to the vigorous manner in which they were exploited, Brazil supplanted India, and the diamond began to fall from its superhuman greatness and become merely the most precious of luxuries. It adapted itself to serve as the emblem of riches, and offered its services to Woman, who hastened to accept them.

This vulgarization of the diamond heralded a new world which was preparing, and had been in progress for a century, when the French Revolution broke out. Real revolutions might be called the "paradise of jewelers," for they always provoke tumultuous displacements of precious stones, which offer those in the trade most attractive bargains. Between 1790 and 1815 nearly all the Church jewels and a part of the jewels of the old aristocratic classes in a great part of Continental Europe were bought by the new rich, whom the Revolution multiplied. The churches were despoiled of their treasures; the civil powers increasingly disdained the idea of dazzling the masses by means of pomp and circumstance; diamonds became an almost exclusive feminine worldly luxury. After having served gods and kings, they now served women and love. How many of those diamonds which, for the last century, have blazed at banquets and balls on the persons of women desirous of pleasing, had lain piously hidden for centuries in dark churches on the statues of the Virgin!

But if Brazilian mines and the hurried liquidations of the French Revolution greatly increased the number of diamonds in commerce in the second half of the 19th century, the diamond still held the position of the rarest among gems.

A veritable rain of diamonds began to fall on the world after 1870, when there were discovered in South Africa, over 1000 miles from the coast, between the Orange and the Vaal Rivers, immense craters which contained, embedded among different strata, prodigious quantities of diamonds of all sorts. These constituted the "dry workings," the richest which man had ever found on his amazing planet. The mines were linked with the coast by railways; the extraction of the diamonds was organized on a grand scale, using all the resources of modern machinery; and a real torrent (which each year grew larger) of diamonds of all sizes began to emanate from the South African mines. The Brazilian mines could no longer resist this competition, and were nearly all abandoned.

By adding themselves to the diamonds of Europe and Asia, the Cape diamonds would have provoked a sharp crisis of overproduction if their fairy torrent had not found a void into which

to precipitate itself, a void that engulfed it for 30 years.

By the side of Europe and Asia which had been accumulating diamonds for at least 25 centuries, there lay an immense country already very rich, but possessed of very few diamonds. This country was the United States. Created by the Puritans, peopled by emigrants who were compelled to devote all their capital to the development of the new country, the United States, up to the second half of the 19th century had only been able to expend a minimum portion of its income on those objects of luxury which the old civilizations of Europe and Asia offered them. But after 1870 there dawned for America an era of fabulous enrichment. Between 1870 and 1900 the United States ensured to South Africa a remunerative market by buying the greater part of their output of diamonds. It was to their American customers that the diamond magnates of South Africa owed their colossal fortunes.

But those remunerative prices could not fail to give rise to increased energy in diamond-mining and in multiplying mines. After 1900 the American customers no longer sufficed. Over-production began to make itself felt; the diamond which had been one of the most fixed and stable of values, became a capricious object of merchandise, and was exposed to the most unexpected rises and falls in price. Things were in this state when the World War produced a cataclysm in the world of jewels and of precious metals.

Since the diamond became a mere worldly emblem of riches, the new rich have always been the best customers of the diamond-mines, because they do not possess diamonds and wish to have them. By improvising so many fortunes, the World War increased the demand for all precious stones. But it also created a great many new poor, and obliged a certain number of families, formerly rich, to sell their jewels. The supply increased at the same time as the demand. There is, however, reason to believe that the demand increased more than the supply up to the moment when the Russian Revolution threw upon the markets of Europe and America, between 1918 and 1922, considerable quantities of precious stones: those which the Revolution had confiscated, and those which had been sold by people ruined by revolution. Despite the horror which these confiscations excited throughout the Western world, the Soviet Government were able without too much difficulty to get rid of the jewels which they had confiscated, beginning with the Crown Jewels.

So the Russian Revolution

reverberated even in South Africa. Thanks to Lenin, the great diamond companies had several very bad years. The wave of Russian bargain prices once passed, the prosperity of the industry was reëstablished by perfecting the system of monopoly which had been outlined before the war; by creating what we may call the "malthusiation" of the diamond. The richest among the diamond companies constituted a "Diamond Syndicate," which bought the output of the smaller companies and rationed the sales each year so far as that was necessary to maintain remunerative prices. The excess production was accumulated in safes.

The diamond industry enjoyed great prosperity in 1924, 1925, and 1926. Again there was hope that the diamond had found its fixed value. But we live in an epoch of change. The "Diamond Syndicate" had hardly established its monopoly when, in 1926, along the Orange River, places were discovered where diamonds could be picked up among the pebbles. Thousands of people crowded to those places, where a man by himself, without needing capital or machinery, could make his fortune in a few weeks.

It was necessary to have recourse to heroic measures. The Syndicate bought from the seekers who had searched those new places £8,000,000 worth of diamonds, which were thus withdrawn from commerce. But, as even a multi-millionaire syndicate could not indefinitely withstand such enormous conversions, there was passed in the Cape Town Parliament a law which gave the Government power to limit the exploitation of the diamond fields. In this way they hoped finally to have eliminated the danger of ruinous over-production. But there are skeptics who do not think that any human law is capable today of checking human cupidity excited by so many treasures within its grasp. Indeed, it is already being said that the field exploited in 1926 is but a small part of an immense extent of land where men need only stoop down to the earth to pick up millions!

What we see is indeed a curious spectacle — the diamond industry engaged in a desperate struggle against the abundance which it has itself created by applying tremendous resources to the extraction of the precious crystal. The crisis gives a vivid illustration of that sovereign law — a law somewhat humiliating to human intelligence — that value depends upon rarity. If all the pebbles we found in the field were diamonds they would be no less beautiful. But despite their beauty, they would be worthless.

One Night in Flanders

Condensed from The American Magazine (December, '29)

Captain Bruce Bairnsfather
Creator of "Old Bill" and author of "The Better 'Ole," etc.

THOSE early trenches were extremely crude — simply ditches. Sandbags were few and far between. Corrugated iron had not been introduced. Rain had transformed these trenches into watery slots. "Dug-outs" were muddy alcoves interjected at random into either wall of the trench. Muddy rifles lay in crevices. The gaps between the rifles were filled with rusting cans, which had brought us food. Here and there were slots running back from the trench, which served as toilet stations and refuse pits. Behind our unpleasant habitation, sundry small wooden crosses stuck out of the ground, recording the passing of those who could not have been buried farther away, because of the dangers and pressures of the moment.

Try to visualize this scene, over which rifle shots "crack" intermittently; then try to realize that this is where you must live, and that there can be no escape except on a stretcher. If you can do this, you will have a picture of the spot in which the first Christmas of the war found us.

What a Christmas! Lurking in a filthy slot that wound its way across an ex-turnip field! Yet when the post arrived on Christmas Eve, bringing several small packages of food and cigarettes from those back at home, the effervescent nature of the British soldier showed itself and we all cheered up a bit. By about midnight, songs were breaking out here and there.

How painfully ridiculous it seemed! Nation facing nation from two long, winding slots in the ground. This, after all the mental evolution of man through the ages, was the method used to settle a dispute! How strange is the dual nature of civilization which cares even for hopeless cripples at enormous expense in peace, and throws its strongest and best into a mechanical hell in war. So I thought, as I sat idly scraping the mud off my boots.

Suddenly a sentry on my right turned down the trench and shouted excitedly, "Shut up, you fellers! Listen!"

The music stopped dead. "What's the matter?" I asked.

"The Germans is singin', sir. Listen, and you'll 'ear 'em!"

Sure enough. We all distinctly heard the distant sound of a concertina, coupled with voices and

occasional laughter. Our men seemed pleased to think that the Germans could sing, and play music too. There was much laughter and interest at this phenomenon. We all went instinctively to the point where our trench approached the German line most nearly, and listened again. The German singing and playing continued, amidst much jocular comment from our men.

Suddenly, one of the crowd scrambled up the parapet and shouted out, "Come over 'ere!"

There was a laugh amongst us at the absurdity of the notion. Someone else repeated the invitation louder. There was an ununderstandable reply from the German trenches, which brought forth still further merriment on our side of the field. Even this terrible war had been unable to check the Spirit of Christmas that seemed to be abroad. Here, on Christmas Eve, something had snapped!

An excited soldier ran to me.

"They've met, sir! One of our men and a German! Out there in the open!"

I hastened back with him to that part of the trench, and found that this had not only really happened, but that one or two more from both sides were on their way to do the same thing. The situation from a military point of view was absurd. What should be done about it? We were soldiers who had fought, and had got to continue fighting. To stop suddenly and be friendly seemed a preposterous thing. But there was a greater force than armies at the front that night.

As the dawn came, I was able to see the situation. Our soldiers were everywhere in disorder. Some were standing on the parapet, a position which at a normal time would have spelt sudden death. Others were straggling out into No Man's Land.

Looking towards the German lines I saw precisely the same scene! The soldiers of both armies were approaching one another across No Man's Land with smiling curiosity. There was a mutual trust about the whole thing, although naturally accompanied by a curious shyness at first, which rapidly wore off. There was no trace of hatred or antagonism. One felt the establishment of that friendliness which forms itself between companions in misfortune.

I met a young German officer, and exchanged buttons as souvenirs. With my wire-cutting pliers I removed a button from his tunic, and gave him one of mine in exchange. Later, I was photographed by a German with several others, in a group composed of both sides. Not far from us lay some dead, now approachable for the first time. The scene was so strange that in a simple,

foolish way I felt the war could not endure in face of it all.

This fraternization was now taking place on a front of half a mile. Strolling about in No Man's Land, I observed the extent of the thing. No Man's Land! where only a few days ago it would have been impossible to move without disaster, but where now soldiers were exchanging food, souvenirs, and cigarettes.

What would have happened if this curious situation had spread in both directions, until such a scene was being enacted along the entire length of the front? With hate, and all the propaganda that is used to inflame soldiers, gone from the war, it would be hard to get the thing started again. If someone could have shouted loud enough to have been heard all along the front — then what?

What could the directing few do if a herd, numbering a million, refused to start again? And what is the right point of view to have if such a condition arose? Should Peace and Good Will — Christianity — be fostered, leading to amicable settlement of the dispute, or should armed force prevail? But if someone powerful enough had arisen in No Man's Land on that morning and advocated a "stop fighting" policy, he would have been court-martialed and executed.

About noon, as the general laxity and friendliness were growing, a football match was suggested. Someone had evidently received a deflated football as a Christmas present. Playing football with the enemy doesn't sound right somehow. However, this project was interrupted.

I was suddenly sent for by the captain of my company, and something within me told me that all was not well. I arrived at his dugout and heard that there was displeasure in the mind of the Colonel at the proceedings.

The news had reached the General, and sharp orders had arrived to terminate any fraternization immediately. What else can a general do? Chatting with the enemy takes no place in his profession. So, with much trouble, the officers in the front line began herding the soldiers back. The Germans were made to understand that the friendly meeting was over. The orders to return to the trenches were reluctantly obeyed.

Christmas Night saw both sides back in their lines, and on our left a few still-mingling soldiers, who had not grasped the serious nature of the orders, were shot down by opposing fire.

The war had started again. Rifles spat forth death across the shell-scarred turnip field, banishing the Spirit of Christmas that had flitted in a strange way across No Man's Land, and for a few hours had triumphed.

Bigger Guns or Better Homes?

Condensed from Collier's (December 7, '29)

Senator William E. Borah

THE marvel of all history is the patience with which men and women submit to burdens unnecessarily laid upon them by their governments. We see this patience manifested today in the matter of armaments. Never since recorded history have governments demanded of people such exorbitant sums for armaments as in these days.

If taxes would remain where they are laid, conditions would be less cruel. But they are passed on to those least able to pay and are represented in everything the poor must buy, for clothes, food and shelter. Taxes with vicious persistence always seek the low man — "on his back is the burden of the world."

What is the situation we now face? Great Britain is spending $1000 a minute for armaments. We are expending no less. In fact, we lead the world in two things: in talking about peace and in expending money for armaments. Every blessed hour that Premier MacDonald spent upon his peace mission, the two nations so profoundly moved in the cause of peace were each expending over $60,000 in preparation for war. There are more men in arms at this time than at any time in the world's history. And notwithstanding all the pledges and continued display for peace, the burden increases. In this year the world will spend $4,300,000,000 for the instrumentalities of war. These peace-professing nations have navies in size and efficiency and cost without precedent. And with all their ingenuity and devotion to peace they have difficulty in devising a scheme which will sink a single ship. The taxpayer, the burden-carrier, sees nothing in the way of relief. Continental Europe, not including Russia, has two million men in arms. Many impoverished countries, whose people live in squalor and misery, are still expending 85 percent to 90 percent of their revenue for the upkeep of the war system.

Furthermore, fastened upon these same people is the conscription system which is as near the incarnation of hell on earth as anything yet devised by the devilish ingenuity of the human brain. Estimate if you can what the world is spending every mortal minute for the instruments with which to maim and murder human beings. Contemplate what

all this means in the way of human drudgery, of human suffering, of that grinding wear and misery which breaks up families, undermines manhood and womanhood and unfits men and women for the duties of citizenship.

Still more extraordinary seems the situation when we recall that these nations have all signed a treaty pledging themselves never to seek settlement of international controversies through other than pacific means. War is rejected, discarded, denounced, and damned — in the treaty. But war expenditures increase.

Are we to go forward with the present load and the present outlay — $1000 a minute and four billions and more for the world this year — with the treaty simply as an inspiration on rhetorical occasions? What those who carry the burdens of war want above all things is relief from its burdens. What the people would plead for is the right to use more of their earnings for education, for food, and for some of the comforts of life.

Mr. Gibson, at Geneva, speaking the views of the President and the views of 90 percent of the people of the United States, said: "Fundamentally, our purpose should be to release large numbers of men from the military service to productive effort; and, second, to reduce the heavy burden of taxation. So long as the nations are burdened with increasing taxation for the maintenance of armaments it is idle to pretend that the world is really advancing toward the goal of disarmament."

This paragraph at once unmasks and denounces the subterfuge in the matter of disarmament which results in leaving the way open for actual increases, rather than for reductions. The coming disarmament conference which more than any other holds the hopes and prayers of countless men and women will test the worth and sincerity of such public pledges.

The President speaking recently of a project to develop our waterways, said, in regard to the increase of expenditures: "This annual increase is equal to the cost of one-half of one battleship." That is $20,000,000. Here is a striking picture of the stupendous load we are carrying, and of the difficulty of making any real decrease that amounts to anything.

If we should save $20,000,000 it would reduce the world's burden for armaments to $4,280,000,000. If Great Britain should reduce an equal amount, it would reduce the world's burden to $4,260,000,000. And if possibly Japan and France and Italy should proportionately reduce, we might be able to get the world's burden

down to $4,200,000,000. What a relief that would be! And then we might turn about and spend $1,700,000,000 for a different kind of vessel and a different class of armaments!

Does it not all seem like incipient insanity? Mr. MacDonald said with fine courage and deep vision: "We take risks in the matter of war, are we not willing to take risks for peace?" Are the nations not willing to dare, to risk, to take some chances, in behalf of disarmament which, put it another way, is in behalf of civilization? For, whether these armaments are used or not, they steal from the resources of civilization.

It was bold leadership when Ramsay MacDonald, the British Premier, came to America to talk over the equality of sea power. We are making progress. There was evidence of sincerity on every hand. The reaction in both countries was assuring.

In the joint statement issued by the President and the Premier we find these words: "Upon the assumption that war between us is banished and that conflicts between our military and naval forces cannot take place," and so forth; and further: "that distrust and suspicion, arising from doubts and fears which may have been justified before the pact, must now cease to influence national policy." The great question now is: Can we carry this message, not in words but in deeds, to the people? Have we the courage and the foresight, the devotion to the cause of peace, to translate these words into actions?

If we are proceeding upon the assumption that war is banished, is it possible to justify the maintenance of the largest navies the world has ever seen? If we cannot bring our acts into harmony with our professions, the Peace Pact henceforth will be treated with contempt by rulers and leaders and utterly distrusted by the people.

The Peace Pact would never have become a reality had it not been for the powerful and persistent support of public opinion, not only in this country, but throughout the world. And it will never be of any practical effect, never result in the reduction of the world's armaments, unless the same powerful and persistent influence continues to exert itself. If there is any cause in the world dependent for its success upon an aroused and sustained public opinion, it is the cause of the reduction of armaments. The leaders have gone out before their peoples like the saints of old and announced to an overburdened, overtaxed, overmortgaged, anxious, maimed, but hopeful following, the coming of a new day and the dawn of a new faith.

The Size of Living Things

Excerpts from The Atlantic Monthly (September, '29)

Julian S. Huxley
Scientist; grandson of Thomas Huxley

SIZE, which we are so apt to take for granted in ourselves and in the organisms about us, is one of the most serious problems with which evolving life has had to cope.

The largest organisms are vegetables, the big trees of California, with a weight of nearly 1000 tons. The largest animals are whales, some of which considerably exceed 100 tons in weight. They are not only the largest existing animals, but by far the largest which have ever existed, for the monstrous reptiles of the secondary period, which are often supposed to hold the palm for size, could none of them have exceeded about 50 tons.

The largest invertebrates are to be found among the mollusks; some of the giant squids weigh two or three tons. The runner-up among the invertebrates is, strangely enough, a certain huge jellyfish with a disk over seven feet across and 18 inches thick and great bulky tentacles five feet long hanging down below. One of these weighs as much as a good-sized horse. What we might call the most successful of all invertebrates, the ants, never reach more than one gram in weight. The largest ant colonies known possess a million or so inhabitants. This whole population would weigh about as much as one large man. Indeed, the small size of most insects is at first hearing barely credible. If you bought an ounce of fleas, you would have the pleasure of receiving over 80,000 of them!

Nature seems to have found it unprofitable to construct a vertebrate out of less than several hundred million cells. Within the groups there is great variation. It is a surprise, for instance, to find a frog that weighs as much as a fox terrier. It is a still greater surprise to know that there exist fully formed adult insects — a beetle or two, and several wasp-like creatures — of smaller bulk than the human ovum and yet with compound eyes, a nice nervous system, three pairs of jaws and three pairs of legs, veined wings, striped muscles, and the rest! It is rather unexpected that the smallest adult vertebrate is not a fish, but a frog; and it is most unexpected to find that the largest elephant would have ample clearance top and bottom inside a large whale's skin.

The great bulk of land vertebrates range from ten grams to 100 kilograms in weight. Why is this narrow range so popular?

A disadvantage in being *very* small is that you are not big enough to be out of reach of annoyance by the mere inorganic molecules of the environment. The molecules of a fluid like water are rushing about in all directions. They run against any object in the water, and bounce off again. When the surface of the object is big enough for there to be thousands of such collisions every second, the laws of probability will see to it that the number of bumps on one side will be closely equal to that on the other; the steady average resulting we call fluid pressure. But when the diameter of the object falls to about one-thousandth of a millimeter, it may easily happen that one side receives a rain of bumps while the other is spared. The result is that the smallest organisms are kept in a constant St. Vitus's dance, christened Brownian movement after its discoverer.

It is impossible, however, simply to magnify an object without changing its shape — if you do so, without meaning to, you have changed all its properties. For the surface increases as the square of the diameter, the volume as its cube. And so the amount of surface relative to bulk must diminish with size. A big African elephant is one million times as heavy as a small mouse. But the amount of surface for each gram of elephant is only one-hundredth of what it is in the mouse.

The most familiar effect of this surface-volume relation is on the rate of falling. The greater the amount of surface exposed relative to weight, the greater the resistance of the air. If a mouse is dropped down the shaft of a coal mine, the acceleration due to gravity soon comes up against the retardation due to air resistance, and after 100 feet or so a steady rate is reached, which permits it to reach the bottom dazed but unhurt, however deep the shaft. A cat, on the other hand, is killed; a man is not only killed, but horribly mangled; and if a pit pony falls over, the speed at the bottom is so appalling that the body makes a hole in the ground, and is so thoroughly smashed that nothing remains save a few fragments of the bones and a splash on the walls.

Relative surface is also important for temperature regulation in warm-blooded animals; for the escape of heat must be proportional to the surface, through which it leaks away. As heat is derived from the combustion of the food, a mouse must eat much more in proportion to its weight than a man to make up for its unavoidable extra heat loss. The reason that children need propor-

tionately more food than grown-ups is not only due to the fact that they are growing, but also to the fact that their heat loss is relatively greater. A baby of a year loses more than twice as much heat for each pound of its weight than does a 12-stone man. For this reason, it is doubtful whether the attempt should be made to harden children by letting them go about with bare legs in winter; their heat requirements are greater than their parents', not less.

The big animal inevitably fails to be a mere scale enlargement of its smaller relative. Everyone knows the small-eyed look of an elephant or of a whale. To obtain a good image, an eye has to be a certain absolute size; and once this size is reached, any advantage due to further enlargement is more than counterbalanced by the difficulties of construction, just as very little advantage is to be gained in photography by making a camera over full plate size.

We come back to the advantages and disadvantages of size. At the outset, it is not until living units are quit of the frenzy of Brownian movement that they themselves become capable of regulated locomotion. The first step in size is to become so much bigger than ordinary molecules that you can forget about them.

But even then you are microscopic. Only by joining together tens or hundreds of thousands of cells can you make headway against such brute forces as currents. Size also brings speed and power, and this is an advantage in exploring the environment.

When we get to whole grams, however, winged life at least has the world before it. Many migratory birds that regularly travel thousands of miles weigh less than ten grams. Swimming soon follows suit; think of the migration of tiny eels across the Atlantic, or of baby salmon down great rivers.

Before a real brain can be constructed, the animal must consist of tens of thousands of cells. The intelligence of a rat would be impossible without brain cells enough to outweigh the whole body of a bee, while the brain of a human being outweighs the very great majority of existing whole animals.

Man, in fact, is a very large organism. During his individual existence he multiplies his original weight a thousand million, and comes to contain about a hundred million million cells. He is a little more than halfway up the size scale of mammals, and nearly two-thirds up that of the vertebrates.

As a Canadian Sees Us

Condensed from The New Republic (December 4, '29)

William York
A Canadian

ABOUT two years ago, when a brave aviator lay dying of pneumonia at a Quebec hospital, another aviator, Charles A. Lindbergh, made a last attempt to save his life by flying from New York with some special serum. This gallant effort proved unavailing: Floyd Bennett died.

The next evening, the Hon. L. A. Tachereau, Premier of the province of Quebec, speaking in Montreal, said in effect, "What do they think we are? A barbarous country? Anti-pneumonia serum could have been procured at any of the world-renowned hospitals of Montreal — even at the very hospital in Quebec where Bennett was. The whole thing was a vulgar publicity stunt."

I happened to be in New York the day that speech came over the wires. To say that the press of New York was astonished is to understate. Lindbergh's serum-flight was not vulgar, it was not a publicity stunt. He took a special serum that only the New York hospitals, of all this continent, possessed.

Yet most Canadians echoed — rather rejoiced at — the words of the Premier. They felt that what he said was in very bad taste, but that someone needed to say it. They resented the whole incident.

The typical American, Heaven knows, is a complex enough creature. His surging ego, his tremendous ambition, have created the rich United States that we know; yet — supposing, for example, that you advertise something for him to buy — you will find him soonest persuaded, the easiest mass market, of any nationality. He is a remarkable combination of sheep and eagle. But the typical Canadian is still more complex. He, too, has enormous ambition; yet he unites at once, a simplicity reminiscent of the open spaces and a sophistication tinged by deeper Old World sympathies. Lust for power — perplexity — caution; there you have the Canadian. That is why he envies the prosperity of the United States, and yet damns that country up and down. In temperament, outlook, speech, he is much nearer the American than the European. Yet he dislikes the American. "Americanism" is something to be on guard against.

If there is one thing the average Canadian delights to do, it is

to lecture the American. He feels especially qualified to do this because his geographical and temperamental proximity give him, he thinks, unusual opportunities for knowing the United States. His pot-shots may be playful; but often they arise from exasperation. The abysmal carelessness of the average American in petty international relationships causes irritation — such trifles as enclosing a stamped envelope in a letter to a Canadian, bearing United States stamps. I was once secretary of a club affiliated with a large American association; frequently I would receive letters urging me to write to my congressman about something, or to help the United States' export trade.

Anti-American feeling based on weightier counts has, I think, two main contentions: the United States is Americanizing Canada; and the United States is squeezing Canada.

Either of these, you may say, is ridiculous. No doubt like other small nations (for our population is sparse) we have suffered from an inferiority complex. Perhaps, if we had been as successful as we had hoped a few years ago, there would have been less of this inferiority complex. About two decades ago Sir Wilfrid Laurier, then Prime Minister of Canada, made the confident prediction that "the 19th century belongs to the United States, but the 20th century belongs to Canada." But having passed the first quarter of "our" century, we find it still belongs very much to you.

When Laurier spoke, Canada was experiencing a flood of immigration and development. Optimism filled the air. But war brought a swift reversal. We fought four years, sent eight percent of our *total* population overseas, and loaded ourselves up with war debts on a scale unequalled in the United States. You had no serious aftermath of war; we did. Our development "flopped" and did not recover after the war as yours did. Immigrants stopped coming, and many of our own people, attracted by your high wages, left us.

So this bogey of Americanization has its roots in envy. We envy your prosperity, particularly when you unload your surplus goods on us. Our own manufacturers often find it tough sledding to produce and distribute to our own much smaller market; but when they are faced by your competition, and are not at all helped by your tariff, you can't blame them for yelling. We like your goods, and buy them on merit; but our own do not get a fair chance. Yours are so much better because you manufacture on so vast a scale. The most powerful selling force you have in

Canada is the triumphant American magazine, which is so good and so cheap that no Canadian periodical, produced for a 9,000,000 country instead of a 115,000,000 country, can ever hope to rival its contents or format. Its advertising pages are the chief thing that put your goods over to our customers.

Commercial penetration is inevitably followed by cultural penetration. It may be a misnomer to call popular American magazines and films "culture"; but these two things exercise a powerful influence in shaping thought, especially of the younger generation. The blatancy of American war-films, for instance, is such that the younger Canadian audience, who were in rompers during the war period, are left in considerable doubt whether Canada ever took part in the great conflict.

"Americanism" also usually suggests to the Canadian the extraordinary trouble taken in the United States to make political capital out of racial hatred; we would all have been ready, if King George V had asked us, to join an expedition against Mayor Thompson of Chicago.

Now we can turn to the fear that the United States is "squeezing" Canada. Rightly or wrongly, the typical Canadian viewpoint of Uncle Sam is of a gigantic and powerful personage with imperialistic cravings, who has developed his own natural resources to the point where depletion is in sight and who casts covetous eyes at the rich but unexploited resources of Canada and Mexico. Typical of his imperialistic attitude are these:

1. In selling American goods to Canadian consumers, many American manufacturers refuse to establish Canadian plants or to use Canadian advertising.

2. Although Canadian money is at par in New York, and although American money is accepted in Canada, American storekeepers and even American banks discount the Canadian tourist's money at from two to ten percent.

3. American capital has secured control of the cinema business in Canada, and refuses to let British-made or French-made films get a decent showing.

4. The United States disregards international treaties, as, for example, it disregards the protest made by Canada that the Chicago River water diversion takes almost twice as much water as the treaty allows, this "steal" seriously lowering the levels of Lakes Erie and Ontario and the St. Lawrence River.

5. The United States is pushing Canada in the matter of the St. Lawrence Waterway, a project from which the United States would benefit more than Canada. Why should Canada go to enormous expense to benefit the commerce of the United States?

If you want to get a Canadian really angry, refer to the international boundary as "that invisible line." The Canadian retorts that the line is not invisible to the customs and immigration officials. He is as keen for world-peace as any man, but he is no sharer in the belief that you will get it by blah-blahing other races with oratory to the effect that we are all — cheers and weeping! — members of one human family.

The Flight of the Arrow

Condensed from The Mentor (October, '29)

Walter Howe

IN the reign of England's King John western Europe was awash with a crime wave on which rode one Falkes de Breaute. Had this unpleasant person flourished today he would have been a boss gunman. Conventional history sets him down as a military mercenary, which is to say he and his 13th century bandits could be hired to fight under the banner of that prince whose bid was highest.

At such infrequent times when England, France and Spain were just too tired to be cutting each other's throats, Falkes de Breaute could be hired for as little as first pillage rights of the victim's house to zip a copper-headed arrow through a body's vitals. And where a particularly rich noble was to be put on a spot Falkes might condescend to do the shooting personally.

But we shan't be able to go into De Breaute details. He comes in for this prominence because he was one of the best archers the world has produced. Moreover his men were with few exceptions extraordinary marksmen. To get a job with Falkes a man was supposed to be able to split a willow wand with an arrow at a distance of 100 yards, although one is bound to suspect that in recruiting very large bodies of bowmen De Breaute was inclined to accept warriors who could *almost* do it. However clever his men might be, Falkes was better. Nothing delighted him so much as to slit a citizen's gullet with an arrow tipped with a broad knife. The wretched candidate would be seized and bound and tied to a tree with his toes just touching the ground. Then, stepping off a hundred yards or so and flanked by a thrilled gallery which knew better than not to applaud, Falkes would loose a shaft which would pass in front of the victim's extended neck, the blade cutting as it whistled past. Sometimes he had to use three or four arrows, but that meant he had been drinking.

This should be rather interesting to the estimated 100,000 persons who have been caught up by the current surge of enthusiasm for archery. For archery is a sport with a background.

Before firearms were thoughtlessly placed in the hands of soldiery the archers were the lads who won the wars. Therefore the Assyrians, Greeks, and Romans

developed some wonderfully proficient archers. We can't ignore Domitian, the Roman emperor who was so clever with the bow that he used to shoot arrows into the skulls of horses just to make it look as if they had antlers. He used to make his male subjects practice archery 14 hours a day until presently one Stephanus broke down under the strain and stabbed Domitian to death with one of the emperor's own silver-headed arrows. The general mourning lasted almost an hour.

And Commodus, a succeeding ruler of Rome. He was so enthusiastic that he used slave boys as targets and would fly into tantrums when he failed to shoot an arrow between the fingers of the upraised hand of a child. He wasn't popular, but when the mobs became too menacing he would shoot an arrow through the throat of one of his ministers, whereat the mob would disperse and go home to dinner feeling better. He had another method of exhibiting his prowess with the bow. He'd place a prisoner in the arena and then loose a hungry lion upon the fellow. As the beast leaped, Commodus would rise in the imperial box and shoot the lion in mid-air. At least that was his purpose. Now and then, of course, he'd miss and then his family would hasten to sympathize with him and encourage him.

Important among the reasons why so many of the Crusades failed was the skill of the Turks with the bow. The Seljuks, the real founders of the Ottoman Empire, were not content to meet the Christian hosts in the conventional solid array. The Seljuks took 100 arrows each and, mounting their horses, set out at a gallop around the Christians, very much as the North American Indians circled the covered-wagon trains. Actually there would be a double circle of Turks, the inner ones shooting and the outer carrying additional quivers of arrows. Now and then the riders in the outer circle would carry braziers of live coals in which they heated the arrows, thereby making it more difficult than ever to be a Christian.

Not that all archery honors have gone to the men, either.

For example, there was the Indian potentate Ahkfellah, who was a terror for years, and solely because his chief reliance was upon his hundred wives — ladies trained to the crossbow — led by a tall fair woman called Langir, the daughter of the great Amazon Acosira, whom no man had dared claim.

Langir was credited with being able to drill a hole through a coin at a distance of 50 paces, and to have the strength to discharge three arrows at once, none of which carried fewer than 300

yards. She came to her death in emulating her amazing mother at lion-spearing. Instead of using a spear Langir used arrows. The bush beaters stirred up the beast and Langir stood to receive it. The maddened cat leaped and Langir shot. The arrow missed his shoulder, back of which lay his heart, and entered his throat. Its head emerged at the back of his neck, but he still had time and strength to smash Ahkfellah's largest wife.

The early Welshmen had a great reputation as archers. William de Breusa, a Norman knight who followed Fitzhammond in his conquest of South Wales, has it that a Welshman took a pot shot at one of his horsemen who was not only clad in armor but also wore a leather doublet beneath. The arrow took the Norman in the hip, kept on going through the saddle and fatally wounded the horse.

Nailing Normans to their saddle seemed to tickle the Welshmen, who, one gathers, were much more interested in perfecting trick shots than saving Wales. De Breusa says that one of his captains, carrying 100 pounds of stout armor, was shot through the hip and pinned to his saddle. As he turned his horse to escape, another Gwentlandman nailed his other hip to the saddle. Then the two Welshmen hurled a couple of arrows into the horse, which fell dead, the captain under it. Welshmen still sing about this.

The archery of William Tell and Robin Hood is so well known that we ignore it here. Rather we will make room for Richard Arundel of Cornwall, who could and did shoot 100 arrows backward across his shoulders, with left and then right, and score 90 bull's-eyes at 30 paces.

Contrary to popular belief, the American Indian was never a particularly good marksman with the arrow. He was wily but not a sharpshooter. Still, Two Lance gained fame by shooting arrows clear through buffaloes.

Mounted on his horse the big Sioux would ride down a buffalo and when within a few yards of the beast would let go with a three-foot arrow. It zipped through the unhappy animal, burying itself in the earth some yards beyond. But Two Lance had been careful not to shoot through a vital organ. The buffalo kept right on running. Six times the Indian shot arrows through the same buffalo before the Grand Duke signified that he was convinced. Then Two Lance shot the animal through the heart.

Like other grand and ancient institutions archery has fallen upon weak, piping times. Look upon a bevy of college girls flipping pretty arrows at straw targets and compare them, if you care to, with Langir the Amazon.

Shades of Jules Verne!

Condensed from Popular Science (December, '29)

Alden P. Armagnac

IN that mysterious region miles above the earth, known as the "stratosphere," where few daring explorers have ever penetrated, the air is so thin that a human being cannot live without artificial oxygen. Yet some authorities declare that the long-distance air lines of the future may be established there. Free of the resistance of air at ordinary levels, airplanes could speed across oceans and link continents at almost incredible velocity.

Recent proposals have been made to fly machines at such a height and speed. A young German engineer, H. G. Perl, announced not long ago his plans for a 22-foot, half-ton bullet plane which he proposed to navigate at an altitude of seven or eight miles and at a speed of more than 650 miles an hour to cross the Atlantic in 6 hours. An Austro-German experimenter, Professor Herman Oberth, proposes a rocket ship many times faster.

Is there really any scientific basis for such an idea?

Today it is possible to build an airplane that will fly 60,000 or 75,000 feet high, without recourse to rockets or any such highly experimental means, in the opinion of one prominent aeronautical engineer who has worked out the details of such a craft. Other experts have endorsed the high-altitude airplane as the next logical development in air travel. A great German airplane firm is said to be planning actually to build high-altitude planes with air-pressure cabins for passengers. And eventually rockets and other inventions may conceivably augment the range of high-flying planes.

The greatest altitude ever reached by a human being was achieved when Captain Hawthorne Gray, of the Army Air Corps, soared in his balloon to a height of 42,470 feet. He died when he attempted to repeat the feat. Another pioneer into the unknown region was the German pilot, Willy Neunhofer, whose altitude flight of 41,795 feet last May was a new world's record for airplanes. From such flights as these, and from the records brought back by the free-flying "sounding balloons" of the United States Weather Bureau from heights up to 20 miles, it is known that the air above the earth is at least a two-story affair, and that the second level has

different properties from the first.

The earth's inhabitants live in the bottom layer, or "troposphere," comprising the first six or seven miles of the atmosphere. Within this thin layer occur the storms that sweep the earth and all of the turbulent winds that threaten aircraft.

With increasing height the air grows colder, until at six miles' altitude a pilot may be soaring through frigid breezes of 60 or 70 degrees below zero. Then, if he pushes upward, an abrupt change occurs at about seven miles' altitude. It gets no colder; perhaps a little warmer. There are no storms, no clouds — he has left them far below. Where he has climbed, there is always sunshine. A sky of a weird, deep blue in which the sun shines almost like the moon at night, tells the pilot that he is in that sunny, frigid, mysterious region known as the "stratosphere." At a height of 11 miles or so, the stars are plainly visible while the sun is shining.

Up there at the top of the sky the air is so thin that it hardly supports the plane's wings. The motor, despite the "supercharger" that pumps compressed air into it, literally gasps for breath. But construct an airplane that could operate efficiently at such a height, and there is almost no limit to the forward speed that it might attain. The backward drag of air rushing past wings and fuselage has all but disappeared.

Moreover, smooth winds of great speed are known to exist at high levels, and these might be used to advantage by a high-flying airman. Sounding balloon observations at the equator reveal a powerful east wind between the altitudes of 8 and 11 miles, which might add 60 miles an hour to the speed of an airplane flying from Europe to America. In the next three miles upward a strong west wind was found. Above, the direction was again reversed. Thus regular air lanes might be established wherever the wind was found to be most favoring.

Flying at 70,000 feet, say, a pilot could glide with motors shut off to a landing as far away as 300 miles. It would take him more than an hour to come down. In case of trouble at sea he could radio to the nearest steamer and land near it.

Will such high-altitude air lines soon replace infrequent, courageous dashes into the upper atmosphere? Some experts think so. Not long ago Igor I. Sikorsky, famous plane designer, predicted a "new type of airplane with highly supercharged motors and an inclosed cabin with air kept under approximately normal pressure, to permit flying at high altitudes with speeds of say 400 to 500 or more miles an hour."

Are Children People?

Condensed from The Ladies' Home Journal (December, '29)

Kathleen Norris

Author of many novels and books, including "The Fun of Being a Mother"

"AFTER all, you bore my children!" says the husband in a modern comedy.

"Yes, and how they bore me!" the wife responds fervently. And of course the house laughs.

But I could almost advocate capital punishment for the pretty, clever, well-to-do mother who is bored to death by her children.

I know such a mother who would tell you that she does everything — everything — for her children. She has three — girls who are now 17 and 15, and a boy of 12. They were dull, disappointing youngsters when I first knew them, seven years ago, and they still are. They will always be dull and disappointing.

They were born into a beautiful nursery full of silver bowls and pink blankets, in an atmosphere of dietitians, doctors, nurses. They had two of those gray-caped, foreign-born nurses. Somehow I distrust in advance these "superior" nurses who "come from fine families." Often they do, but are the defective members of those families, with little mental twists that make them the last persons in the world who should train children. Mother, meeting the children for a moment just after the last hand of bridge, sees nothing but the smartness of Nounou. But solemn little Five and Seven are only too anxiously familiar with their nurse's strange moods.

But to go back to my acquaintance. When Junior and Harriet and Constance outgrew nursery days their mother employed scores of persons to carry on their education — and most of these she *knew* to be mentally inferior. The only persons who didn't take any direct responsibility for the children's development were mother and daddy themselves. Daddy made money for them as fast as he could, and had their photographs on his office desk, and mother rushed about beautifying herself and telephoning to various persons about the children's eyes, teeth, French, health, clothes, dancing, tennis, mathematics.

Harriet, at 16, fell in love with the chauffeur, who was 46. The man felt quite as badly about it as Harriet's mother did. It developed that the child had been kissing Rudolph for years, in a childishly impulsive fashion. What she felt when the whole

secret, shameful thing came out, and when her beautiful mother laughed at her discovered, passionate young letters, and when those letters were read at teatime to mother's intimate friends, only the God of shy, little, awkward, neglected girls knows.

This is the kind of mother who loves to trot her children about in exquisite clothes; little girls all long legs and curls, little boy adorable in an Eton collar. But they have their meals with the nurse, and nurse answers all their questions, forms their ideas, and gives them whatever point of view and code they get.

My acquaintance would not have wasted five minutes in serious conversation with the nurse she had employed. Yet the woman she referred to contemptuously in her conversation as "bird-brained" — that woman was moulding her children as completely as if they had been soft, wet clay in her hands. As a result, those children have grown up dull and disappointing. No amount of beautifying will give the girls animation or spontaneity. They have been raised by inferiors, and inferior in mind, manner, and ideals they will remain. One girl of my acquaintance who was similarly reared is now 20, and she wants still to play with dolls and to quote the life history of the family servants.

And the moral of the whole thing seems to me this: That children are persons, and should be treated as such.

The reason that we have persuaded ourselves that children are essentially different from ourselves, are little inferiors to be slapped and deceived, is because they are not our physical equals. Intelligent wives don't slap their husbands. If, at my table as a guest, you chance to break a valuable teacup, I do not burst out suddenly with threats and blame and lamentation. Yet we horrify our children over and over again with this sort of unregulated domestic passion. And when we are not angry at them too often we are bored. How often the child, bursting with intelligent curiosity, is silenced by a "Stop asking questions, for heaven's sake! You're driving me crazy!"

If there is one thing for which a mother ought to thank God on her k ees it is that her child will ask questions, that the exquisite little living brain is beginning to work. Every question children ask ought to be answered seriously — even if the little questioner is three. Use words that they don't understand, refer to unknown elements — they love that. They love to be taken respectfully on their own terms. They should be treated as friends.

Can it be done? Oh, not by every mother, believe me. Many mothers will still continue the

punishments, the contempt, the misuse of power, the quite obvious impatience with growing spirits and souls. But there will be some mothers who will be able to do it, and they will know the exquisite reward of finding in the family new intimates, new devoted and understanding friends.

Children raised without punishment? I say yes. I say it is as old-fashioned to punish children as to burn heretics.

Don't punish a small child. Convince him, at three, that candy and late hours and lying and disobedience are silly. No child in the world was ever anything but angered, shamed or made stubborn and secretive by whippings. No child in the world, at four, could be anything but deeply impressed by a mother who said to him, conversationally:

"That poor lady has the sort of children who suck dreadful green lollipops just before lunch. You see how sick they look and how cross they are. That poor little girl has never been taught to be polite. Isn't that sad?"

These object lessons impress children deeply. Children can judge of cause and effect just as quickly as their elders can. Of course they make mistakes, break things, forget things, persist when they ought to yield, and yield when they ought to persist. But so do you and I.

One extremely successful mother of my acquaintance used to praise the selfish baby for unselfishness, and the passionate three-year-old for self-control. She used to tell the mischievous member of the group that she marveled at the way he was beginning to control his naughtiness, and congratulated the absent-minded little daughter upon becoming thoughtful. And they firmly believed themselves to be what her generous love would have made them, and became these things as time went by.

Try rational, friendly explanation, try companionship. Look at the troubled little face before you and say to yourself, "She's not a child, she's a person. She's not an imbecile dependent, she's a friend. I mustn't ever make her conform to a rule that I wouldn't observe myself. I must explain household laws to her, health laws, moral laws. She may not be perfect, but she wants her mother to think she is, just as I want her to think her mother is."

The mother who does that will find herself saying mildly, "What would you do if you were in my place, Mary? I don't believe hurting brother would do any good, do you? Suppose you and I pretend that we never noticed that the dolly's dress was torn, and we'll slip out this afternoon and get her a new one." That would work with Mary's aunt. It will work with her.

Why We Are Prosperous

Condensed from The World's Work (December, '29)

Samuel Crowther

Author of "The Book of Business" "My Life and Work" (written with Henry Ford) etc., and frequent contributor to magazines on business subjects

THE fundamental prosperity of this country depends upon the consuming power of the people. That consuming power is exercised through the medium of money. The chief sources of the money to finance consumption are the wages and salaries paid by industry and the amounts paid to farmers for their crops. A third great source of income is the profits of industry, but these profits are more largely devoted to the finance of production than to the finance of consumption.

In recent years the farmers have not had a great deal of money. The wage earner, on the contrary, by reason of the improvement in the means and methods of business, has received a very much larger income than ever before, and hence he has been able to buy more. The proprietors of business have, by reason of these same improvements, been able to earn larger profits than ever before. These increases in wages and profits have been large enough to do more than overcome the relative decline in farm income, and therefore the consumption of the country and, following it, the production, have steadily and solidly increased.

That is why we have been prosperous in steadily increasing measure since 1923. Has anything happened to weaken the foundations of this prosperity?

First, just what is prosperity? A condition in which everyone by adequate exertion may obtain a progressively better sustenance with a further reward for future effort in proportion to the efficiency rather than the force of that effort. There is a difference between effective exertion and mere exertion. Effective exertion is predicated on there being something which is worth while to exert oneself about — a confidence in the future. To that extent a mental attitude is essential to a condition of prosperity. Nothing can be expected of a man who is licked before he starts.

Has anything happened, then, to cut into the purchasing power of the country or to change its mental attitude? We have had a panic in the stock market, and also we have had somewhat of a slackening down in three of our supposedly essential industries —

in automobiles, in steel, and in building. And we seem to have developed a neurasthenic tendency to examine into how weak we are rather than how strong we are.

The stock-market show was so highly spectacular as to engage the complete attention of the people. One of our most conservative newspapers on October 29, following the big smash of the day before, carried the headline that stock prices had dropped 14 billion dollars. Since the present national income is somewhere between 90 and 100 billion dollars, it most certainly seemed to the casual reader that the country was well on its way to the bow-wows. Someone dug up the fact that George F. Baker lost 14 or 15 million dollars in one day through the decline of his First National Bank stock. It was not, however, noted that Mr. Baker's bank stock was not for sale at any price, and that he did not know how much money he had lost or even that he had lost any.

As one examines the many reputed losses, one is bound to be struck by the fact that the most acute appear to be in the field of make-believe. The big losers were mostly among those who merely took paper losses, and these are not actual losses at all. Until a man actually sells his stock for less than he paid for it, or until the company fails to pay him the expected dividends on that stock, he has lost nothing at all.

The losses, then, have been very greatly exaggerated. On the other hand, very serious actual losses there have been. How have these losses affected the purchasing power of the country?

Some of the very large operators on the stock market have been hard hit, but if all of them had been cleaned out it would not touch the purchasing power of the country, for there are not enough of them.

Then there is a great army of men and women who put up five or ten thousand dollars, and many of them have been wiped out. They have lost the purchasing power represented by that part of their income which came from savings, but that also is not a determining factor in the purchasing power of the country, for it is not a large total income.

As we go down the line and reach the smaller income classes it becomes instantly apparent that those who speculated and lost must have done so on savings. There is no evidence that the savings accounts of the country have been to any great degree drawn upon, and therefore the loss in savings cannot be very great among the lower-income classes who use savings banks. During all this period the assets of building and loan associations and the number of life-insurance

policies written have steadily increased, so that there is really not a bit of evidence that the savings of the country have been seriously cut into.

In the past half-dozen years this country has quietly gone through an economic revolution which we may some day discover to have been the most far-reaching of all revolutions. The beginnings are traceable to the depression following the postwar boom. Everywhere wages had gone up. Merchants and retail distributors had on hand great stocks of goods — poor stuff bought at high prices. Buyers resented having been stung and did not willingly buy anything but bare necessities. Then came the price slashes to clear the shelves. With their stocks down, retail merchants began to buy cautiously in very small quantities, so that they could not be caught again with heavy stocks. The manufacturers referred to this contemptuously as "hand-to-mouth buying." The manufacturers, following the lead of the automobile makers, had to tackle the problem of producing at low prices and at the same time paying high wages.

Stark necessity drove new policies into business. Then it began to dawn on everyone that the few leaders who had accepted the challenge were actually earning money under these absurd conditions.

Soon the new business policy shaped itself. High wages produced a great purchasing power. The hand-to-mouth buying was discovered to be a working out of the principle of rapid turnover which the best retail men had been urging for years. We had been buying and selling as though our stores were on islands that ships visited only twice a year. We now discovered the importance of the telephone, the fast railway service, of the motor-truck. The system took the speculation out of merchandising, and relieved the market of the ever present possibility of sacrifice stocks.

And so business founded a new order of things. The heaping up of unsold goods, which used to be an evidence of a business depression, no longer is possible because of the close coördination of manufacturing and consuming. We have found an insurance against this kind of depression. What, then, can stop our progress?

There are just two great dangers to the continuance of prosperity. The first is the false idea that business is still governed by a cycle of boom and depression, and the second is that the leaders of business will think that the country is broke because some of their friends are. And also there is the danger that many of the executives who have been playing the market instead of working will not know how to get back to real work.

The Crook and the Bull

Condensed from The North American Review (December, '29)

Cliff Maxwell

Writer of vagabond and sea stories, who has traveled the world by the hobo route

FOR those who chose to look, the prison riots of recent months have afforded a glimpse into a volcano of hatred. The smug upper world has had a sensational vision of vengeful fires smouldering in the soul of the criminal underworld.

I doubt that society is ever going to get anywhere in the struggle with crime until it understands this hate-psychology of the criminal. I don't say the desperado's reckless rage should be condoned; I say that it should be recognized as a practical fact, and that its causes should be understood.

Beyond that, I don't pretend to know anything about the underlying cause of crime itself. I doubt whether there is *any* single cause. Criminals may be made in countless ways. I only maintain that, regardless of their separate origins, once they've encountered the law, the police, and the prison bars, their souls have been seared. The petty embezzler, the juvenile delinquent, the war hero who has gone wrong, the vagrant and the sneak-thief come out of the "reformatories" or jails with the same hate toward society, with the same mental and emotional attitude, as the gangster, the degenerate, the toughest burglar or murderer. They became criminals for countless diverse reasons. Those who remain criminals do so largely for one simple reason. They hate and fear the cops and what the cops stand for.

We don't need to build up profoundly complicated analyses of the criminal's attitude. He has endured unspeakable brutality and he is at war with those who have inflicted it upon him — the cops and their allies. I think I can make you understand this factor in the crime problem, because I understand it so well myself. I share the criminal's hate.

I hate the bulls like hell. I hate them because I fear them. I hate them not because they are representatives of authority, but because of what they do to the average person who falls into their clutches. I hate them because they do not differentiate between the crooked and the unfortunate or vagrant.

Unless wanderlust is to be defined as a criminal inclination, I am innocent of any guilt toward society. But I have often been

convicted of the "crime" of being "without visible means of support." Naturally, while doing my bit in jail I have rubbed shoulders with crooks. I have had ample opportunity to witness — and sometimes experience — what is called "police brutality." I take exception to that expression. It isn't "brutality." The brutes leave such cruelty to superior man.

My first experience with police methods occurred in a county jail where I had been sentenced for that heinous crime of "being without visible means of support." On my second day there two Guatemalans, who had recently arrived in the country and who had been celebrating unwisely, were convicted of being "drunk and disorderly." Neither of them spoke a word of English. That evening one of the Guatemalans committed a minor infraction of the jail's very elementary decencies. In all innocence he assumed that American jails were conducted on the same plan as those in Latin America. Without a word the guard — who was himself to blame for having failed to provide for the prisoner's convenience — unlocked the door of the cell, stepped inside and, with his black-jack, beat both men into bloody unconsciousness, while the rest of us cursed him from our cells.

I was in my 'teens at the time and, though I considered myself hard-boiled, this sample of cruelty shocked me horribly. I told my cell-mate that I wished the two Guatemalans had killed the guard.

He laughed without mirth. "Hell, boy, that's nothin'. Wait till you go against th' third degree."

But couldn't the victim of such outrages take legal action when he was free? I asked.

"Yeah?" snarled my cell-mate, pointing to his nose bent hard a-port, and then to a great scar on his forehead. "What legal action do you s'pose I could take for these things they handed me? Could I get even with 'em in court? No, by God. . . ."

As the years passed I heard the stories of many crooks. One who was unusually intelligent once said to me, "Did it ever occur to you that behind every picture shown in a newspaper of a bandaged suspect with his be-starred custodian standing complacently beside him, there is a story of police brutality?

"The first time they posed me for a newspaper picture I was still so dopey from my beating I didn't know whether I was being Bertilloned or turning handsprings at a Dutch picnic. I was guilty, all right, and would have pleaded guilty, but I was beaten up until I was unconscious, not once, but three different times

before I heard the penitentiary door shut behind me."

He went on to tell of prison cruelty, of trying to get a job after his release, of being taken up again on suspicion and given the third degree on general principles, of being hounded by the police till it was impossible to get a job of any kind, of more crimes, more third degrees, more jail sentences.

"The last time I got the third degree I would gladly have died if I could have had a gun for just two minutes. I'd have croaked all right, but, by God, so would some of those lousy cowards who were giving me the works."

Some time ago an acquaintance of mine was kicked to death in Denver because he would not admit something the police tried to torture him into confessing.

I needn't pile up these cases; they're all alike, and I and every other hobo knows of them by the score. And conditions are not much better in some reformatories for juvenile delinquents — I know because I once took a job in one. You, the reader, wouldn't believe the stories of what goes on because in your world you have not met with such physical and moral cruelty. But the kids I knew had already come to hate right royally the police, the guards, and through them all that they stood for — which is law, order and society.

The marvel of it is that the American public will tolerate such things. And, by the way, the Latin Americas and the United States are the only countries that *will*.

In England the British bobby does not dare beat up his prisoner. They do not know in England what the third degree means as we have perfected it. In Germany, France, Belgium, Holland and Japan the methods peculiar to the American police are not tolerated. And who ever heard of crime waves and gang wars in those countries?

In all this I have sought to do nothing but reflect the mental and emotional attitude of undying hatred toward the uniformed representatives of society which fills our prison population from coast to coast. I freely admit my own prejudice. I suggest no solution, but I think the protected citizen must admit that wanton brutality, perpetrated by his protectors upon the criminal, accounts in part for the crook's hatred — and that that hatred is a factor in every effort to solve the crime problem.

No matter how brutal the criminal, society will not save itself from his depredations by being more brutal than he is.

Does It Ever Rain Fishes?

Condensed from The Scientific Monthly (December, '29)

Dr. E. W. Gudger

Bibliographer and Associate in Ichthyology, American Museum of Natural History

BARON MUNCHAUSEN, the prince of tellers of "big stories," never told of a rain of fishes. But a certain John Kendrick Bangs, feeling that this was an oversight, wrote such an account for him under the subhead "Recent Adventures." Bangs says that his narrator-hero when a boy secured a large quantity of gunpowder and planted it in a fishpond. When this was touched off the whole pond was blown high in air and after some days the contents of the pond, containing many fishes, rained down on the astonished people.

Now the interesting thing is that an imagined rain of fishes is not necessary, for there is a multitude of true accounts of such rains. Having a penchant for the unusual in natural history, for many years I collected and filed away accounts of rains of fishes. When I came to publish them I found I had 48 accounts ranging from A. D. 300 to 1901, and in space from America (eight accounts), Great Britian (ten), Germany (eight) France and Greece (one each), through India (ten), Ceylon (three), Malaysia (two) and the South Seas (one).

The publication of this article aroused much interest and letters came in calling my attention to overlooked references and giving personal experience. These accounts I brought together in another article. There were 26 of them, but I think that three are duplicates and that I have established only 23 new falls.

There are thus put on record about 71 accounts (more or less well authenticated) of rains of fishes. These accounts in range of time and space make for sure testimony as to the actuality of the occurrence of this phenomenon. I have personally never been so fortunate as to experience or even witness such a rain, but I can not disregard the evidence recorded by scientific men.

Since the publication of my previous articles there have come to me two accounts of falls of fishes which are so well authenticated that it seems worth while to put them on record. The first, a personal experience, was related to me by Mr. Richard Hoadley Tingley, of Port Chester, New York, whom I have known personally for a number of years. This fall occurred on May 15, 1900, on the outskirts of Providence, Rhode Island. A severe

thunder-storm with a high wind brought a heavy downpour of rain and with it living squirming perch and bull-pouts, from two to four and a half inches long, which fell on yards and streets — covering about a quarter of an acre. Mr. Tingley says that he was out in the storm and was pelted not only with raindrops but with fish as well. The boys collected these fishes by the pailful and sold them, while a reporter on the Providence *Journal* gathered a bucketful of them and these were displayed in various shop windows on one of the principal business streets of the city.

In July, 1928, I heard of a fall of fishes near Tarboro in my native state of North Carolina. I have spent some time in getting the particulars, and even more effort in getting corroboratory evidence; and I am persuaded that full credence is to be given to the account and to my informants. Here follows the story of this fall of fishes as communicated to me.

On May 18, 1928, a rain of fishes fell on the farm of Mr. S. N. Clark. This farm is operated by Mr. W. L. Doughtie, and from him and his wife I have gotten the following details. A heavy downpour of rain came on this day. There was very little wind but there were fishes, hundreds of them. No one was out in the rain, but immediately after the shower the children went out and began wading about in the puddles where they found many little fishes, some of them alive and swimming. The fish were pretty uniform in size, about one and a half to two inches long. Mr. Doughtie estimates that there were several hundreds of these little fishes scattered over two or three acres of ground. This spot is some three quarters of a mile from the nearest water course, which is not known to contain any number of fishes.

Now for the explanation of these and all other rains of fishes. High winds, particularly whirlwinds, pick up water, fishes and all, and carry them inland where, when the velocity of the air and clouds becomes relatively lowered, the fishes fall to earth. Can anyone who has seen a waterspout doubt that it could pick up and carry off fishes? No one, I believe, who has experienced or even seen the prodigious effects and carrying power of a land tornado can have any doubt of the ability of a waterspout, a water tornado, to bring about a "Rain of Fishes."

Dead Pictures on the Walls

Condensed from Vanity Fair (December, '29)

D. H. Lawrence
Author of "Sons and Lovers," etc.

THE human race loves pictures. Barbarians or civilized, we are all alike; we straightway go to look at a picture if there is a picture to look at. And there are very few of us who wouldn't love to have a fascinating work hanging in our rooms if we could afford it. Instead, unfortunately, as a rule, we have only some mediocre thing left over from the past, that hangs on the wall just because we've got it, and it must go somewhere.

Pictures are strange things. Most of them die as surely as flowers die. The reason lies in ourselves. When we buy a picture because we like it, then the picture responds fresh to some living feeling in us. But feelings change: quicker or slower. If our feeling for the picture was superficial, it wears away quickly — and quickly the picture is nothing but a dead rag hanging on the wall. On the other hand, if we can see a little deeper, we shall buy a picture that will at least last us a year or two, and give a certain fresh joy all the time, like a living flower. We may even find something that will last us a lifetime. If we found a masterpiece, it would last many lifetimes. But there are not many masterpieces of any sort, in this world.

The fact remains: there are pictures of every sort, and people of every sort to be pleased by them; and there is, perhaps, a limit to the length of time that even a masterpiece will please mankind. How often dead pictures — even dead masterpieces — are preserved only because of a vulgar satisfaction in them as pieces of property. It is fatal to look at pictures as pieces of property.

If we could only get rid of the idea of "property" in the arts! The arts exist to give pleasure or joy. A yellow cushion gives us pleasure. The moment it ceases to do so, take it away, give us another. This is done, and so cushions remain fresh and interesting, and the manufacturers manufacture continually new, fresh, fascinating fabrics. The natural demand causes a healthy supply.

In pictures it is just the opposite. A picture, instead of being regarded like a flower or a cushion, as something that must be fresh and fragrant with attraction, is looked upon as solid

property. We may spend two or three dollars on a bunch of roses, and throw away the dead stalks without thinking we have thrown away our dollars. We may buy the lovely cover of a cushion, and strip it off and discard it the moment it is stale, without for a moment lamenting the money. We paid for aesthetic pleasure, and we have had it. Lucky for us that money can buy roses or lovely embroidery. Yet if we pay ten dollars for some picture, and are tired of it after a year, we can no more destroy that picture than we can set the house on fire. Yet we *ought* to be rid of the picture, once the aesthetic emotion is dead.

Which belies the tedious dictum that a picture should be part of the architectural whole, built into the room. This is a fallacy. A picture is a decoration, not architecture. The room exists to shelter us, the picture exists only to please us, to give us certain emotions. A picture in a room is the gardenia in my buttonhole. If the tailor "built" a permanent and irremovable gardenia in my morning-coat buttonhole, I should indeed be unfortunate.

The value of a picture varies with the individuals who see it, and so it should be allowed to vary. But at present, it is not allowed to vary. We all have to stare at the dead rags our fathers and mothers hung on the walls, just because they are *property*.

We are not so foolish in regard to books. Everywhere there are huge Circulating Libraries. People hire books till they have assimilated their contents. Why not the same with pictures?

Why should not the stores have a great "library" of pictures? Why not have a great "pictuary," where we can go and choose a picture? There would be men in charge who know about pictures, just as librarians know about books. We subscribe, we pay a certain deposit, and our pictures are sent home to us, to keep for one year, for two, for ten, as we wish: at any rate, till we have got all the joy out of them, and want a change.

In the pictuary you can have everything good. You can have big supplies of modern art, fresh from the artist; etchings, engravings, drawings, paintings; you can have the lovely new paintings that most of us can't afford to buy.

There are few, very few great artists in any age. But there are hundreds and hundreds of men and women with genuine artistic talent and beautiful artistic feeling, who produce quite lovely works that are never seen. It is a tragedy that all these pictures with their temporary loveliness should be condemned to a premature dust-heap. For that is what they are. Contemporary art belongs to contemporary so-

ciety. Society at large *needs* the pictures of its contemporaries, just as it needs the books. Modern people read modern books. But they hang up pictures that belong to no age whatever, and have no life and meaning, but are mere blotches of deadness on the walls.

The living moment is everything. And in pictures we never experience it. The general public feels itself a hopeless ignoramus when confronted with modern works of art. It has no clue to the whole unnatural business of modern art, and is merely hostile. Even those who are tentatively attracted are uneasy, and they never dare *buy*. Prices are comparatively high, and you may so easily be let in for a dud. So the whole thing is a deadlock.

Now the only way in which to keep the public in touch with art is to let it get hold of a work of art. The great reading public came into being with the lending library. And the great picture-loving public would come into being with the lending "pictuary." The public *wants* pictures hard enough. But it simply can't get them.

The cheapening of books freed them from the gross property valuation and released their true spiritual value. The public wants and needs badly all the real aesthetic stimulus it can get. And it knows it.

There are thousands of quite lovely pictures *which belong to today*, and which remain, stacked dustily and hopelessly in corners of artists' studios, going stale. It is a great shame. The public wants them, but it never sees them; and if it does see an occasional few, it daren't buy, especially as "art" is high-priced, for it feels incompetent to judge. At the same time, the unhappy, work-glutted artists of today want above all things to let the public have their works. It is necessary that adults should *know* them, as they know modern books. It is necessary that children should be familiar with them, in the constant stream of creation.

And there we are — the pictures going to dust, for they don't keep their freshness, any more than books or flowers or silks; and yet their freshness means hours of delight. And the public is pining for pictures, but daren't buy, because of the money-property complex. And the artist is pining to let the public have them, but daren't make himself cheap. And so the thing is an *impasse*.

Now is the opportunity for the department stores and their lending library — or "pictuary" — of modern works of art. Or, better still, an Artists' Coöperative Society, to supply pictures on loan to the great public.

A Chinese Scholar Views Business

Condensed from The Nation's Business (November, '29)

Kiang Kang-Hu

Professor, Nanking University; Lecturer at University of California

THE word "business" conveys the idea of being busy. To us Chinese scholars, and in fact to all Oriental philosophers, to be busy is distasteful. Why should we always be busy? What is it all for? Are we too busy to live? I think one can live much better without being busy, and I am sorry to see that there are many people in the world who are too busy to live.

Are we too busy to die? Death is forever awaiting us, and we do not have to speed its approach.

I can never understand or be accustomed to modern western life, especially the American business man's life. Every one is busy every moment — hurry, rush, push, pull and struggle.

One of our popular T'ang dynasty (618–906 A.D.) poets once expressed his lamentation in the following lines: "All events are experienced with too much anxiety. No one ever takes time to rest before he dies."

We Chinese believe that human life is composed of two phases: the positive or active, and the negative or passive. It is vastly important that we should balance them well. We have always been carefully taught to apply our positive or active forces inwardly, that is to say, spiritually, ideally, mentally and morally. The negative or passive forces should be directed to opposite ends.

In other words, we should sublimate our possessive instincts toward the acquisition of knowledge, virtue and invisible property; the ambition for conquest should be turned to the conquest of ourselves — our own evil thoughts, our bad habits, and our vicious practices; the fighting spirit should be led toward literary and artistic contests or muscular and physical training. In our outward and material life, we prefer to live simply, humbly and economically.

We have also been taught that, when in government position or any official capacity, we should conduct our positive or active forces toward public utility, and our negative or passive forces toward private ends. The things which belong to the community or which are for the good of the public must be well taken care of, improved and perfected, while one's private belongings are negligible from the eyes of a statesman or philosopher.

Now, consider some basic theories held in the psychology of the western business man from the viewpoint of a Chinese philosopher.

First, we find in this country a firmly established money standard; in other words, a dollar-and-cent measurement of human activities and their values. I cannot agree that material conditions are the only determining factors of history. I can still less agree with the idea that national welfare and personal success are indicated mainly by the numerical figures of incomes and expenditures.

More pernicious yet is the growing conviction that everything is purchasable with money or that every phase of civilization can be valued only in terms of merchandise.

Money, though a very convenient means of life, is certainly not the end. Why should we sacrifice everything, even our lives, for the accumulation of money, and reduce ourselves to machines and mechanisms? Unless there is some property in a nation or in a person that cannot be corrupted or bought by money, that nation or that person is not worth living.

Second, the belief in the struggle for existence by the creation of a busy and noisy world is increasingly unbearable. It is necessary to work earnestly and diligently: it is also necessary to work with ease, quiet, and good taste. The best efficiency test is not how to exert one's ability and exhaust one's strength, but how to preserve them and recreate them.

So, a restful night is of importance to a working day, and the leisure hours are invaluable to the busy minutes. Until one knows how to regulate his labor and tranquilize his mind, he does not live but simply exists. Here again we must not mistake means for ends. Strife is but one phase of life; it is neither its final aim nor its original purpose.

Third, we notice a tendency to promote luxury and extravagance for society as well as for individuals, and thus bring about the habit of money spending. One of the greatest American business men, has emphatically admonished the American youth to spend all the money he can make and then allow himself to be driven by the burning desire for new wants, that he may be induced to make more money for its realization. He advocates that the standard of life for both society and individuals will be lifted by more money spending and more money making.

To be sure, such a policy does actually enrich the state, but it inevitably disturbs people's minds and menaces also their moral and physical orders. This in turn reacts upon the psychol-

ogy and social conditions of the community. Social unrest, insanity, crimes, and revolutions are its natural outcomes.

Fourth, a new maxim is current in the business world, that discontent and dissatisfaction are the motive forces for improvement and progress. Mr. Kettering, President of General Motors Research Corporation, wrote recently in *Nation's Business:* "In our particular line our chief job in research is to keep the customer reasonably dissatisfied with what he has."

It is a plain truth that if people are dissatisfied with the things they have, they will always long for something else and try to get it if they can afford it. In this way the business man will always make his money out of those who are striving harder and harder to catch up with the fashions and styles.

Such persons are life-long slaves of their material desires and vanity illusions. They are forever burdened by the increasing weight of their self-made harness and lashed in the most merciless manner by the whip of an invisible master day and night. Death will be their only deliverance. Of course, it is possible that they are satisfied so long as they fulfill their desires. But how long will this last? There are always more desires, and always something else more desirable.

Aside from all this individual torture, the waste for society as a whole is also very great.

We must work, and work hard, for spiritual realization, mental enlightenment, moral perfection and cultural attainment. But in all matters that lie outside of ourselves, we must learn to take them lightly; to enjoy them if we happen to be with them — possession is, however, not necessary — and to be still content if we must live without them. Life is always easier and happier for those who desire less, and depend less upon, things outside of themselves.

Furthermore, we must work and work hard, for the improvement and the advancement of the community, the state, the nation, and above all, for humanity, for it is humanity that will live long and not we. When we work for the benefit of humanity, any merit surely lasts, but when we work for the benefit of ourselves, all merits become void upon our death or before.

Therefore, we do well to apply our positive or active forces toward that which has a spiritual significance and is good for mankind, and our negative or passive forces toward that which has only material value and is good only for ourselves. Only those who possess spiritual wealth can overlook material wealth; only those who love humanity know how to deny themselves.

Canned Astronomy

Condensed from the Scientific American (September, '29)

Albert G. Ingalls

WITHIN the year Chicago and Philadelphia are to have the first American planetariums. From the day of opening of these two mechanical marvels, public interest is certain to reach new levels all over the nation.

You cannot adequately describe a planetarium performance; you must see it. As a controlled mechanical reproduction of the universe, with the mechanics in the background, it is well nigh perfect. At present the only way to see a planetarium is to go to Europe, especially Germany where they were invented and developed. Fifteen German cities now own planetariums, though each projector costs $75,000 without the building. Vienna, Rome, and Moscow also own planetariums. People, old and young, stand nightly in long queues waiting for the performance to begin.

One enters a large dome. Geometrically it is a hemisphere. An ant would feel the same under the peel of a half orange. The planetarium dome is usually about 75 feet in diameter. This dome represents the vault of heaven. As the lights are dimmed and the heavens are flashed on, the dome seems to vanish as if by magic. One no longer feels himself inside a building; one acquires an "outside" feeling — the dome seems to retreat to infinity.

As the planetarium spectacle flashes on you can hear the word "Ah!" ripple across the room. They say that this is an invariable accompaniment of this first glimpse of the "heavens." Even a case-hardened professional astronomer will say it under his breath.

How many stars do you see out of doors on the clearest night? Many would say millions. The actual count of naked-eye stars in a clear sky gives less than 3000. The planetarium heavens have the full quota of naked eye stars.

How would you go about equipping a domed ceiling with 5400 stars — those of two hemispheres? Possibly you would make holes in the dome and illuminate them from behind. Such a method, however, fails to give a real illusion. No, these stars are projected from that odd-appearing apparatus in the center of the floor.

This contraption, with its 119

optical projectors, looks like a giant dumb-bell. On either end of it there is a sort of hemisphere, which looks not unlike a diver's helmet. Within each of these "helmets" is a powerful incandescent lamp. Set into the sides in various positions are 16 lenses. Behind each lens is a kind of diaphragm bearing the right stars in the right places. These project slender invisible pencils of light, corresponding to each star, to the inner walls of the dome of the planetarium. The illusion is carried out with typical Teutonic thoroughness.

But why must there be two of these "helmets" one asks. The answer is, to permit the apparatus to project not only the stars of the northern hemisphere but also those of the southern. In the planetarium one travels; indeed, we shall see things no man has ever seen in reality or ever will see. We shall take the universe to pieces. Some of the effects thus produced are bizarre.

In addition to the 5400 stars, the planetarium projects the Milky Way. All these things are not merely projected inertly; they move. To accomplish this it is simply a matter of rotating the helmets. A small electric motor does the rotating. This and a number of other motors which operate the various parts of the apparatus is controlled by means of a bank of push buttons on the desk of the speaker. This speaker explains the phenomena he displays. Thus we see the stars rise in the east, culminate and set behind the "distant" western horizon. But the 24-hour astronomical day, which runs off so slowly in the actual heavens that we find it difficult to note changes, may here be run off in only four minutes.

Thus the motions of the heavenly bodies are accelerated many fold. The process is comparable to those moving pictures in which the gradual growth of a tendril is depicted within so short a period that we gain a clear idea of it.

Thus far we have the heavens and they are in motion, but our universe is not yet complete — we must add the planets. This brings in some interesting problems of machine design, for you cannot have your planets in motion at the same rate as the stars. Nor is this true of the sun and moon. Each pursues its separate course "through" the fixed stars. The planets, then, call for special machinery, trains of driving gears especially designed.

To see the outer planets in sensible motion through the stars is to understand their motions at a glance. This gives in a few minutes an epitome of a whole year of astronomical events. If a day is made to last four minutes, then Mars is seen to revolve around the sun 7.2 minutes ac-

tual duration; Jupiter creeps along at the rate of 47.2 minutes. Saturn, even then, is barely in sensible motion at the rate of one revolution in 2 hours 56 minutes. The inner planet Venus is lively, making the round of her orbit in only 148 seconds, while Mercury whirls round and round in only 58 seconds — incidentally throwing light on the derivation of the word "mercurial."

There is something ludicrous about the inner planets when thus seen revolving about the sun at a highly accelerated rate. Mercury is a gadfly and even Venus herself is lively. The ponderous outer planets are "dignified old parties," not deigning to haste even when they are forced to accelerate a few thousand fold.

Thus it gives one a distinct picture of all the slow motions one sees in the heavens, and a better conception in ten minutes than one could acquire in a lifetime of patient outdoor observing and attempting to remember the continuity through months of elapsed time.

Now the speaker will put on some astronomic stunts. He has shown how the heavens look from Chicago or Philadelphia. He wishes to show how they would look from the equator; from Buenos Aires; from, let us say, Commander Byrd's base in Antarctica; and from the North Pole; or from any intervening point. To shift the point of view requires only to press a button. The stars are no longer in their familiar places. At the Poles we are able to see the midnight sun, and at the North Pole we see the Pole Star directly overhead.

We can shift our point of view, in the planetarium, not only in space but also in time. We can easily retrace our steps to the days of the later Cro-Magnon races, 14,000 years ago; or we may jump ahead to see how the skies will look to our descendants several thousand years hence. Four minutes can carry us through 26,000 years, the period of that peculiar gyroscopic motion of the earth which brings about what the astronomer calls the precession of the equinoxes. The earth wobbles as it rotates, much as a top wobbles. Each wobble is in a circle 47 degrees in diameter and requires 26,000 years to complete. This means that the Pole Star is not a permanently fixed reference point. Just now, during our lifetime and during our "epoch," it happens to lie almost in line with the prolongation of the earth's axis. But Vega will be the Pole Star in 14,000 A.D. and Vega is a long distance from Polaris.

Thus with the planetarium we take the solar system to pieces and see how the pieces work. Superhuman feat! It is the best "movie" I have ever seen.

Four Soldiers

Excerpts from McCall's Magazine (December, '29)

Erich Maria Remarque

The German private who wrote "All Quiet on the Western Front"

IT is inconceivable to us today, ten years after the war, that there was a time when hate and blindness and error stifled the impulse of man to seek the truth.

Only from ignorance could such hate and blindness and error spring; the ignorance that blocks the way of man toward truth. Millions of Frenchmen and Englishmen and Americans believed the Germans to be Huns who, for their chief pursuits, slew children and ravaged women. And millions of Germans believed the French were destined by nature to be their arch enemies, that Russians were barbarians and that Englishmen and Americans fought the war solely as a part of a cold, business-like quest for trade. It mattered not that such notions were false. The war lent them strength. A man shut his eyes and saw in his opponent only the enemy, never another man.

In the first years of the war there were moments in the trenches when the homely understanding of the simple soldier found release. These moments were touching and human things. Men of opposing sides by nimble gestures, signs, flags, sometimes reached an understanding; and for a few hours at a time these troops stopped the war. Germans went into Russian and French trenches, Russians and Frenchmen into German, to swap tidbits and cigarettes and other knick-knacks. . . . Later, they shot each other down. The higher command put a stop to such an idyll.

The American or the Frenchman who travels through Germany today sees a friendly, industrious and a peaceful people, and the German who visits America or France sees the same. One does not comprehend how, 12 years ago, these faced one another, each regarding the other as a brutish criminal, a man without a heart. It was as if each soldier took such a criminal and used it as a one-sided measure to cast the statue of a whole people. But such one-sided notions have gone. One knows at last that all the people in the world are alike, knows that all have the same cares, the same joys, the same struggle and the same life.

For the will to truth, the striving to gain an objective understanding of the other fellow, has become real again. One can be proud of being a German,

an American, an Englishman, a Frenchman, but one goes to war no longer in order to prove his pride.

We may prove it by taking the trouble to understand the kinship of us all. And the heart of man is filled with hope. Four years of hate has bred only the wish to understand each other. Four years of fighting has left us only thoughts of peace.

John W. Thomason, Jr.

Captain of American Marines who wrote "Fix Bayonets!"

MOST of the men who went to war served obscurely, withdrawn from the high places where the statesmen and the generals ordered events. They were told, it is for France, invaded. Or for England, whose honor — and presently, whose life — is at stake. Or it is for Old German Land, stifled by a ring of foes. Or for Mother Russia — Holy Russia. Or Italia Irridentia! Or, it is to make the world safe for Democracy. So they fought, obediently and valiantly, and with amazing patience. They endured four years. Then the survivors drew breath and thought a little.

Now, the years between have made dim the memory of many things; the old war cries sound far-off and strange; and there are divided opinions as to what it was all about, exactly, and as to whether the rewards of victory were in keeping with the sacrifice. But the men who fought, and the world after them, have drawn from their battles the knowledge of the universal decency, the honesty and the worthiness of the common man.

The soldiers have this knowledge first, for their duty takes them to the point of contact. The enemy is no longer the fearsome creature of propaganda, about whose lust and evil courses all the stories are told. He is an individual who shoots at you, personally, and you are armed, yourself. Presently you see him lying dead, surprisingly small and crumpled, and not fierce, with the look on his dead face that you saw on your comrade's face, who fell back yonder.

You pick up his wounded, and find them remarkably human fellows.

Further, it is evident that his machine gunners, who elect to keep their guns in action, and his war-hardened infantry, who stand to meet the bayonets, have something in their hearts which holds them firm to die. It comes to you that, believing what you believe, with no lessening of devotion, you can respect the man you fight, because he believes in

something of his own. One of you must be beaten; and there is no second prize in battle. But after it is all over, you can meet on common ground.

War is an expedient whereby nations, when they reach an impasse in their dealings, work out their differences. Since tall Atlantis stood, nations have gone out to fight and come back sore and sorry, resolved that it shall never happen again. As a matter of fact, there is seldom more than one great war in a generation; and all the authentic veterans that I have known are extremely peaceable folk, moderate and kind in their opinions of the men who fought them. The hope of the world is that the lessons of decency and tolerance which one generation learns from its war may be transmitted to the next. And when the unblooded children realize that the people across the border, barring minor variations in language and custom, are much the same kind of folks, then, I think, we can solve our problems by discussion rather than by killing off the misguided fellows who disagree with us.

The article in McCall's gives the statements of two other soldiers, R. C. Sherriff, the English officer, author of the play, "Journey's End"; and Henri Barbusse, the French poilu, author of "Under Fire."

The man who descends into the Valley of Death, says the English soldier, understands fully, for the first time, the exquisitely precious quality of life. "At zero hour of attack he silently vowed that if fate were kind, if life were spared him, he would prize every moment of it thereafter with unspeakable gratitude. To millions the chance never came to taste life as it could be seen from the Valley of Death: but to millions it has come." For men who have been granted this view, life can never again be something cheap, "to waste and abuse." This vision, a heritage of the war, gives hope for the future.

FOR THE BLIND

THE READER'S DIGEST is the only ink-print periodical issued in its entirety in Braille. Each Braille copy is a clothbound book, approximately 11 inches square in size, and 2 inches thick. It is sold at actual cost of production, $2.00 for a single copy or $20 a year (plus carriage charges), by the American Printing House for the Blind, Louisville, Kentucky.

Miss Keller Celebrates a Sight-Giver

Condensed from The New York Times Magazine (November 17, '29)

Helen Keller

Author of "The Story of My Life," "Optimism," "The World I Live In," "Out of the Dark," "My Religion" and "Midstream: My Later Life"

IF we should look for the greatest benefactor of the sightless — the individual who has given them a perpetual source of delight and profit — the choice would certainly fall upon Louis Braille.

A century ago this humble Frenchman opened a new way to knowledge and mental delight for the sightless. Today, on the anniversary of his discovery, we who are without sight celebrate gratefully the achievement of one who poured the sweetness of tangible printed words into the bitter waters of our affliction.

It had been obvious for many years that if the blind were to be educated, a method must be devised by which they could read and study like the seeing. Louis Braille invented the embossed system which made this possible. The magic wand with which he wrought this miracle was a group of six dots in which the vertical line consists of three dots and the horizontal of two. Sixty-three combinations of these six dots may be used.

Braille's invention was as marvelous as any fairy tale. Only six dots! Yet when he touched a blank sheet of paper it became alive with words that sparkled in the darkness of the blind! Only six dots! Yet with them he captured words that bring to us the rainbow and the splendor of sunset skies, words that, like swift ships, bear us far away from the monotony of blindness, the trivial incidents of time and place and the pain of thwarted effort.

Louis Braille was born in April, 1809, near Paris, the son of a harness-maker. One day, when he was three, he was playing in his father's workshop, and took it into his head to imitate his father, whom he saw at work. The sharp awl with which the lad was working slipped, flew upward and entered one of his eyes, destroying its sight. Sympathetic inflammation in the other eye followed and he soon became totally blind.

After the education of the blind began in 1784, the first method of printing books for them was with a system of characters resembling the Latin alphabet — the Roman line letter type. Valentine Haüy, the first educator of the blind, discovered this method accidentally, while watching the

process of the ordinary press. He observed that sheets fresh from the press and printed only on one side showed the letters in rather sharp relief. He at once set about enlarging the characters. His discovery was hailed as a path to deliverance for the blind; but the rejoicing gave way to disappointment when it was discovered that from one-third to one-half of the blind in the schools could not decipher Haüy's line letter. The chief defect of his method was that he used curved forms, which the blind reader finds extremely difficult. He did not know that the more elaborate a raised letter is, the less easy it is for the blind to recognize, or that the finger detects sharp angles much more quickly than curves, or that points like the period are perceived very clearly.

Countless modifications of Haüy's line letter were attempted, but none of them was successful.

Braille gained recognition slowly. In America, it encountered three rivals. The first was the Roman line which Dr. Howe, director of the Perkins Institute for the Blind in Boston, had improved for his young sightless pupils. The second rival of Braille was New York point, which made its appearance some time before 1868. The third was another modification called American Braille.

This battle in types which continued to rage in the schools for 50 years began to approach a settlement when in 1917 the American Association of Workers for the Blind adopted European Braille as the standard for the sightless of America. The final victory for uniformity was won in 1921. Thus at last the blind of both hemispheres were united in one method of embossed writing.

Yet, reader of printer's ink, consider the vast disparity between your resources and those of the blind. The New York Public Library has more than 2,000,000 titles for those who see, and only 1250 in standard Braille! Many of the Braille volumes of the library are transcribed by individuals and are available only in single copies! A most touching story of human kindness is the zeal with which hundreds of people master Braille and give up their hours of leisure to transcribe books for the sightless.

The blind who once sat brooding through sad, interminable days of emptiness now look with rapt gaze upon the universe as they read with their eyes in their fingers. . . . Yes, the blind can now work, they can study, they can sing, they can add their share to the good and happiness in the world. And it was Louis Braille, a captive bearing a yoke as cruel as their own, who found the golden key to unlock their prison door.

Bicycle Days

Condensed from Hearst's International-Cosmopolitan (December, '29)

O. O. McIntyre

Journalist; dramatic critic; author of a syndicated daily newspaper feature

HISTORIANS are prone to ignore the sentimental side of that glamorous epoch when all America became suddenly "bicycle-conscious." Yet many a silver-haired husband is basking in connubial content today because of his catlike grace thirty years ago in touching the back step and springing to the saddle of a red Rambler in a single bound.

The bicyclists who knew their stuff were the Jack Barrymores of those hallowed days. Not many girls could resist the chevalier who drew up in front of their homes and dismounted by rearing the front wheel skyward in the manner of a bucking broncho.

The bicycle Romeo, like the knight of old, won his lady fair by patiently acquired feats of daring. He spent endless days in back alleys consecrating his life to the fulfillment of the Big Moment when he could pedal past "her" house with his arms folded nonchalantly across his chest, looking neither to the right nor to the left, and possibly whistling some vagrant tune.

It was a jazzless era. The noisy moan of the saxophone had not yet drowned the dulcet tinkle of the mandolin. Tender hearts were swayed by the lilt of:

> But you'll look sweet
> On the seat
> Of a bicycle built for two!

Almost the whole of life revolved about the bicycle. Families often rose or fell socially as the result of owning this or last year's model. In the '90's the affluence of a family was judged by the size of the bicycle rack on the front lawn. A "one-bicycle" family had very little standing.

I recall a true story of a local spoke-manufacturer who had expanded his credit to the breaking point. His son was summoned home from college and his notes were no longer negotiable at the bank.

In the midst of this chaos he circled the public square one evening, during the progress of the weekly band concert, astride a dazzling new enameled white and chainless Columbia. By this coup de cycle he circumvented inevitable bankruptcy.

It is a privilege to have lived through those bicycle days. As a bicycle historian I am eminently qualified to speak. Let me modestly point out my record. I was the first boy in our town to mas-

ter the feat of climbing through the frame of a bicycle while it was in motion. I could by turning the front wheel at a left angle stop dead in my tracks and lift my hands from the handlebars. I could suddenly reverse and ride backward. And once I almost — but not quite — rode with one foot on the seat and the other on the handlebars. I landed head foremost on a carriage-block, and to this day many people think that is what is the matter with me.

But the greatest fame that I have ever tasted came one day when, after an exhibition before a grandstand, I was presented with a medal inscribed:

Champion
Trick Bicycle Rider
of Gallia County, O.
1894

Can I ever forget those 20-mile bicycle trips when a dozen of us, with lunches strapped to handlebars, would start off at sunup? There was a joyous take-off as we pedaled through town three abreast, turning corners with military precision, for the open countryside.

There was a song in our hearts that none of us will ever hear again. Mothers in aprons waved farewell from front porches and shouted warnings about railroad crossings, frightening farmers' teams and so-and-so's bull. Old Mr. Tipton, hobbling to town, would snort in disgust about the younger generation "a-ridin' to hell on bicycles."

Duke Mulford, on his big sprocketed Iver Johnson with swooping ram's-horn handlebars would swing into the lead. There was also Aloysius Faber, with a plush seat on his expensive Munger — the sissy. There was also "the certain girl" whose taffy pigtails stood almost straight out in the breeze as she pedaled her low-gear machine madly.

Up hill and down dale we flew in breathless ecstasy. Farms and rail fences seemed to flatten out as we sped by. There were delightful stops at little springs where we would press our mouths to the cool earth — and away again. Then a stop in the old covered bridge to sing "In the Good Old Summer Time" and listen to the amazing echo. Finally the long coast down Cemetery Hill to the green flank where we dismounted to feast. So home in the delightful languor of an opalescent mist.

Young people today might look upon this bright interlude of ours with something suggesting a polite yawn. But to those of us who shared its exquisite charm it is recalled with something suggesting a gulp.

The Talk of the Town

Excerpts from The New Yorker

Incubator Babies

NOBODY gets more flowers on Father's Day than Dr. Couney, the man who hatches the incubator babies at Coney Island. His alumni are eternally grateful; they never forget those early days on the boardwalk. The last time we went down to Coney we got asking questions about the art of incubation. It seems that the Chinese were the first to use incubators; they had a sort of sheepskin affair. Only recently has there been any really scientific device. Years ago, in the Paris Zoo, a keeper invented a box with hot sandbags in its sides, for keeping baby lions. This hotbox was seen by a professor from Leipzig, who adapted the idea to human babies, using, instead of a sandbox, a bathtub with double walls. This provided heat but did not supply air satisfactorily. (Premature babies cannot breathe ordinary air; it must be filtered.) Then along came Dr. Couney and solved the air problem. He had a chimney placed high up where there is no dust, into which fresh air is sucked. Then it is filtered, heated to the right temperature, and pumped into the small glass incubator. Used air goes out through a valve at the top. This invention attracted the attention of the medical profession and won prizes. An American exposition was traveling through Europe then (Dr. Couney was born in Breslau, Silesia, 62 years ago) and the manager persuaded him to come to this country to exhibit his invention as a sideshow. He first set up in Omaha, Nebraska. Eventually Fred Thompson, the old showman who started Luna Park, brought him to Coney Island. That was in 1903. He has been there since and has saved about six thousand lives.

Coney turned out to be a good location. The gate receipts have always been adequate, and the twenty-five cents which the public pays supports the institution, gives Dr. Couney a profit, and enables him to employ two physicians and eleven nurses and provide free board and lodging for his little beginners.

Incubation is interesting work. The babies are usually six- or seven-month children. They must weigh at least two pounds at birth or there is no hope. Most of them weigh three, or three and a half. It takes about five weeks of incubation to give them enough life to come out into the open. All

races are accepted; there is one premature pickaninny there now. Every three hours the babies are taken out and fed. They get only human milk, from wet nurses.

Blackstone Revised

A gentleman of Newport who went to Mexico on a personal matter reports that the goings-on in the courts there are generally strange. He got a divorce decree the day after his arrival and would have been back on American soil that evening but for an unexpected and untoward event which held him up. On his first afternoon he had dropped into an antique shop where he looked over some admirable Spanish brasses. He would have bought some pieces but he found the price too high and walked out of the store without discussion. That evening a large crucifix, a pair of 15th-century altar candlesticks, and several other objects were delivered C.O.D. at his hotel, accompanied by a bill for $8000. He sent the things back saying there had been a mistake. A few hours later he was served with papers in a suit for the value of the collection. He frantically sought out the native lawyer who had represented him in the divorce action. The antique dealer was a rascal. That was well known. The attorney said leave everything to him. The case came up in court. The dealer took the stand. The American, he testified, had plainly ordered these things. The dealer went minutely into details. The American was horrified. He was further horrified when six other Mexicans took the stand and supported the dealer in his testimony, in every detail of it. Actually none of this half-dozen had been in the store when he had looked over the things. He was still more, much more horrified when his attorney arose to open the case for the defense and announced blandly that he and his client admitted everything. The American had honored the shop by a visit, he had ordered the articles enumerated. Everything the complainant and his witness said was true, all true. At this point the American concluded that he was the victim of a double frame-up and had been properly done in. But things took an unexpected turn. His attorney continued. It was all true, everything was true, except in one particular. The American had paid for the articles.The antique dealer and his witnesses had failed to go into this detail. The resourceful Mexican attorney thereupon called eight witnesses of his own. They remembered the transaction well. Everything had happened as stated, but the defendant had paid for the articles. They were certain. They even remembered the denominations of the bills he had passed over.

The court decided in favor of the visitor. The latter's attorney thereupon bundled up the antiques and, when he parted from his client before the hall of justice, walked off with them. The client left the country at once.

The Colonel Lindberghs landed in a plane the other day, about as might any other couple, except that a movie man was there with a camera — and a microphone concealed under his coat. He got a film of what happened and also, secretly, such noises and words as there were, and scurried off exultantly. He had been pretty excited and didn't realize until he had got to the studio and developed the sound part of the film, or whatever they do to it, that he had caught the nation's hero reproving his wife for not having worn a petticoat. The management, realizing the enormity of their servant's act, and their own terrible responsibility, decided instantly to destroy the film and say nothing about it.

Most harried of all business executives was the one seen riding across 44th Street toward Grand Central in the back seat of a Ford sedan, dictating to his stenographer as he rode. He looked such a prisoner in the silly little cubicle, with the patient handmaiden making silly little marks on a pad. "Civilization," we murmured, halting near the curb, "is making a monkey out of that man, all unbeknownst to him." And just at that moment civilization started to make a monkey out of us with one of its fast Fifth Avenue buses.

A man drove into an uptown garage with a very old machine, to have something fixed, and remarked to an attendant that probably they didn't see many cars as antiquated as this one of his. To this the garageman replied that Mr. Tiffany, the jeweller, has two cars, both of them 1912 Simplex machines, and that he has driven only those two cars since he got them, before the war. They are of the old-fashioned, very high variety, but he has never had any trouble with the engines, and never has thought of getting a newer model.

Some Americans were standing in front of the Chartres Cathedral when a fellow countrywoman, sight-seeing alone, came and stood near them. For several moments she was motionless and silent, and one might have thought she was drinking in the cathedral's beauty. Suddenly she turned to one of the group. "What," she asked with enthusiasm, "do you suppose that church weighs?"

The New Patriotism Is Peace

Condensed from Pictorial Review (December, '29)

Dorothy Thompson (Mrs. Sinclair Lewis)
Former newspaper correspondent in Europe; author of "The New Russia"

MANY a person who celebrates this month the birthday of the Prince of Peace will do so with a sigh or a cynical shrug of the shoulders — for are not the national hatreds and economic rivalries which breed war on the increase?

But as for me, I shall be neither sad nor cynical. I believe that the civilized world is today closer to permanent peace than ever in history. The strange paradox is that one can be close to war and close to peace at the same time.

Suppose I have an old feud. Let us say that a neighbor and I own adjoining farms, and that the dividing fence has been destroyed years before. Each of us claims a certain strip and each sincerely believes he is right.

I put up a fence on the basis of my claims. My neighbor tears it down. I, in defense, erect it again. One day his dog wanders into my territory and kills one of my chickens. Maddened with rage (entirely righteous), I seize a shotgun and kill the dog. And when a cow of mine appears in his pasture he shoots it. Now we are both angry enough to do one another any injury. But, in spite of our passions each of us has, somewhere, a spark of common sense. I think, "He is a horrible man, but this state of affairs cannot go on. Neither of us will have anything left if it does. We must call a halt, and settle our differences by striking some sort of a bargain. *The quarrel has become too costly!*"

We are, you see, close to war, and at the same time close to peace.

The world today is somewhat like that. The kinds of conflicts which, in the past, have caused wars have not diminished. But the world is coming to the sobering realization that *no nation is rich enough to afford modern warfare.*

It is the recognition of this fact which brings us close to peace in the very moment when we are close to war. A new kind of pacifism has been born. When war was a means of extending national power and defending national ideals, pacifism was looked upon as something shameful. Today's sober pacifism is based upon a recognition of the fact that war *no longer defends.*

When nations were smaller units, self-sustaining; when weapons were simple, and wars were

fought by professional armies — in those days it was possible to win a war. It was possible to extort reparations from the conquered, either by annexing land or by annexing the products of men's labor.

Once armies could fight in some distant field and the normal work of the world went on elsewhere. Read Thackeray's "Vanity Fair" for a description of London as it was while England, with all Europe, was fighting Napoleon. London was gay; life went on entirely as usual. Now recollect what life was like in London during the Great War. A civilian population hungering, and fleeing into cellars from bomb raids. Think what life was like in Germany, where, although the frontiers were never invaded, the close of the War found an entire population starving to death.

No major war will again be fought exclusively with armies. The Great War taught us that the battle-front extends into the home, and every man, woman, and child is a combatant. That realistic people, the French, frankly recognize this, and in their present defense plans they plan for the potential mobilization of every citizen, of either sex, of any age.

You and I know little about the weapons which might be used in another war. We only know this: that in the last war a gas was invented in the United States, after our entrance into the War, which, dropped from airplanes, would have wiped out human life completely in entire cities. That gas was offered to the allies, but France, with Germany at her gates, refused it. Even in the moment of the highest national passion and fear, France realized that this was a weapon which might all too easily destroy those who used it — a weapon more dangerous than Germany. And the gas, sealed in great drums, was secretly taken far out to sea and sunk in the depths of the ocean.

War has become a greater menace than any enemy can possibly be, and the first call upon our patriotism is to defend ourselves against war itself.

If I had children I would tell them just one thing about the last war, and I would tell it to them over and over again: *No nation won it. Everyone lost it. And from now on all great wars will always be lost by all the combatants.*

No war was ever more completely won from a military standpoint than the war against Germany. Since the War every possible means has been taken to collect the winnings. Military means — the Ruhr occupation; economic pressure; threats. In the end we have had to face reality. All that we can ever hope to do is liquidate the War.

No victor can profit by it. So far the United States has lent Germany every cent which she has paid to the allies.

In other words, all the nations that participated in the War, regardless of which side they fought on, if they work together in good faith, if they coöperate financially and economically, can, perhaps, in three generations, pay for this most wasteful and futile of human blunders. This is exactly what the last reparations conference in Paris meant.

Why? Because the economic and financial organization of the world is so intricate that it no longer permits of radical tampering. Because no nation is self-sufficient. Because if Germany pays in goods, beyond a certain amount, she throws millions of workmen in other countries out of work.

Even the United States is no longer a self-contained nation. You and I, perhaps, think of the United States as the space between the Atlantic and Pacific, Canada and Mexico. But for purposes of defense these are not our frontiers. We are a great industrial, capitalist nation, and capitalism knows nothing of geographical boundaries. If a factory needs manganese it reaches out and includes Russian manganese-mines in its boundaries, and immediately the political and economic situation in Russia affects the United States. If Germany wants cheap automobiles, the flow of goods follows the demand and leaps the sea as lightly as Lindbergh did. Not a single European nation could go to war today without American interests being in some measure affected. We, of the United States, are closer to war now than we were in 1914. For that very reason, I believe, we are closer to peace.

It is not really strange that the countries which have done most for the cause of permanent peace are those with the bitterest quarrel. It is not really strange that the countries to sign the most revolutionary treaty of peace — the Rhineland Pact in the Treaty of Locarno — should be those that suffered most in the last war, Germany and France.

We must face the fact that to avert war we shall have to throw overboard a whole system of old ideas. It is a striking fact that the League of Nations, with all its secretariats, bureaus and commissions, could run for 600 years on the military budgets of its members for a single year! All of tradition is still on the side of war.

But on the side of peace are science, human knowledge, intelligence, and the new patriotism.

Note: This is the first of a series of three articles by Dorothy Thompson appearing in *Pictorial Review*. The second will appear in *Pictorial Review* for January.

Business and Middle-Aged Women

Condensed from Liberty (November 23, '29)

Princess Catherine Radziwill

Her father was a friend of three Russian czars, and she herself was once secretary to the mother of the ex-Kaiser. After the Bolshevik revolution she came to America, where she combines business with writing

ONE of the services rendered by Henry Ford to the community is that he has had the courage to say that human beings can still do good work after they have reached the terrible age of 40 or 50. That statement from him was the best consolation which poor devils whose youth is a thing of the past could have had.

The world does not care for old people, or people whom it supposes to be old. It does not really care for experience. It requires youth and nothing but youth, and it carries its insistence to a point which touches upon craziness, because the requirement rests on nothing but a prejudice.

I myself am middle-aged and I happen to have to earn my living. Mighty difficult I have found it, owing to this unwritten law of every business office — that only young girls and women are to be hired. Of course I can understand very well that it is pleasanter for the boss to be surrounded with pretty, youthful faces, and to have a secretary capable of blushing if he pays her a compliment. But still, this preference should not be carried too far, because even flappers have their shortcomings: they are apt to forget to mail an important letter, or to deliver a message to a client, if they happen to have a date. Whereas a middle-aged woman, especially one with a conscience, will always put her duty before her pleasure, and file a document before she powders her nose.

I had had money all my life; had never thought of ever being compelled to work. Therefore, when the Bolshevik revolution in Russia left me without a cent, it became a problem how I was to keep my body and soul together.

My first thought was to get into a newspaper office. I imagined that my experience as a writer might prove useful. But no — I was told that no one was employed who had not had at least five years' experience in a New York editorial office. Another editor said bluntly that he did not want a mature woman on his staff because she could only aspire to a position of typist, and would find herself most unhappy in a subordinate position.

I next tried a business office. This proved even worse. Nothing could have been meaner, more insulting or discouraging than the reception I met with from several office managers — to whom, it must be added, I had been warmly recommended. One of them actually told me that a woman of my age had no business to look for a position because she would never live long enough to learn its details.

It was everywhere the same. It seemed to me that everybody fought shy of middle-aged women as candidates for good positions because they thought them insufficiently pliable, and unwilling to learn, while on the other hand they hesitated to offer them minor positions that would enable them to learn the routine of the business. The thing that surprised me most during those weary weeks was the fact that while people never wanted even to look at anybody without practical experience, they refused to give any chance to acquire that experience.

Well, then, I made up my mind to put pride and prejudices in my pocket and try to acquire, at no matter what cost, this experience the lack of which was continually thrown in my face and used as a pretext to hide the real obstacle which stood between me and honest employment — my age. I determined to try to do what only very young people did, to begin at the very bottom, provided I should be lucky enough to get a chance.

The next morning, accordingly, after carefully studying the newspaper advertisements, I started out once more in the apparently hopeless task. This time fortune favored me. After several refusals, I was offered the job of a telephone operator in the office of a stock-broker on Broadway, at $12.50 a week. I was warned that the position was temporary, as its real occupant would return in about three weeks.

I had never operated a switchboard, but in my joy at having landed something I entirely forgot the goddess Truth, and declared that I could manage it to perfection. Fortunately I knew a girl who was operating a switchboard in a large hotel, and I sought her out. She very good-naturedly showed me what I would have to do. She must have been a wonderful teacher, because when I sat down at my switchboard the next morning, I was able to work it well, if somewhat slowly.

Of course all the other women in the office began to make fun of me. "Fancy being a telephone operator, at *her* age!" I used to hear them whisper to each other. "Can't the old thing do anything else?" I tried not to listen to them, and applied myself to

my work. I must have done it tolerably well, because when the girl who was away returned, she was promoted and I was told I could keep my job. My salary was also raised to $14 a week.

Disagreeable as the position was, I stuck to it for six long months, after which one of our clients, who had taken a fancy to me, asked me whether I would care to sell bonds for him. The offer was tempting, yet I hesitated to accept it. Its results were problematical for an inexperienced person. He insisted, however, and I finally resigned my wonderful position, after declining a raise of four dollars a week if I would stay.

After this things eased a bit. Bond selling turned out an excellent occupation, and I discovered that I was making a good bit of money at it. I was feeling perfectly content when one day my chief called me into his office and informed me that our sales manager had resigned and that I could replace him if I cared to.

This was great, and I felt great! So a sales manager I became and continued to be — until one fatal week when our firm went out of business, and I discovered that I would have to begin again to hunt for a position.

This time I had experience. But, alas! experience is not taken into account when one is no longer young. Once more I had to pocket my pride and, after enjoying a salary of $100 a week, accept a position in a real estate office where I made about $40.

But by that time I had become ferocious myself, and I handled our sales people ferociously. The result was very quickly apparent. I was promoted, and today I am again a very well salaried business woman. But alas! I have not grown any younger, and some day I may find myself out of a job again.

This story has a moral — we who are middle-aged must fight and apply ourselves to overcome the unwritten law that only very young folks can do things well. It will be harder for women than for men. But the middle-aged woman must never forget that her experience of the world, her knowledge of various problems of life, can make her more useful than the flapper, no matter how attractive the flapper may be.

If the middle-aged woman plays her cards well and carefully and, above all things, displays a Spartan indifference as to the sneering remarks she will overhear, she will sooner or later be appreciated by her employers. And she will be helping in the struggle against one of the greatest injustices of our day: the prejudice against valuable workers who have passed their fortieth birthdays.

What Is Ahead of Youth?

Condensed from The Red Book (December, '29)

Warwick Deeping
(See note on inside back cover)

LIFE is self-expression; and each generation must express itself in its own way and in its own language.

A reminiscent mood can be significant. My father, a busy country doctor, kept three horses and was often twelve hours on the road, visiting outlying villages. I have a feeling that he saw more than the modern doctor sees. He had more time to observe things, crops, birds, trees, the sky and its moods. He loved poetry and could quote it while handling the reins. I cannot imagine a man at the wheel of a fast car quoting poetry.

Busy man that he was, he had time to be a justice of the peace, a good cricketer and a first-class shot. He had leisure — or he made it — for matters that were amazingly various. He kept immense notebooks. He read. He wrote poetry. He found time to teach himself German. He could hurry and yet remain inwardly at peace. He combined the two qualities of the craftsman and the artist.

I can remember, back in the Bicycle Period, starting off on a 50-mile ride with a Scotch student, and directly we had cleared the town, he said to me: "Now, what shall we argue about?" I was surprised. I was content to ride and look. "Why argue?" He answered: "I always like to get up an argument on a ride, and I like it to last the whole way. What about Free Will?"

Consider the mentality of that Scotch student. He was mounted on a machine, but he was so much master of that machine that his urge was to talk metaphysics. He was a brain, a personality carried along on two wheels; but he still dominated the machine. It was a useful accessory. It had not so cramped his intelligence that it was a mere narrow slit no wider than the road along which some mechanical creature thundered.

Then came the automobile. . . . Often I sit in a village or on the edge of a wood or heath, and marvel. Modernity rushes by. It fills the old quiet places with incessant and dreadful noise and mechanical unrest. Hustle is the thing. You must pass the other fellow. You must exhibit the swagger of speed.

Modern youth finds its self-expression in movement, and especially in rapid movement. It is objective rather than subjective.

Its hero is the speed-king, the games expert, the man of big business, the super-mechanic. And to a point all this is immensely healthy. It demands courage and fitness and self-control. It is of the open air. It does not smell of the cabaret and the brothel. Modern youth at its best strikes me as very clean. It is much less sex-obsessed. It is more mature, yet sometimes it appears pathetically disillusioned. We youngsters of 30 years ago could be romantic creatures, and I often wonder whether modern youth falls in love as we did, not only with women but with life. For to fall in love with life and to remain in love with it, a man must have the soul of the artist.

I do not mean a long-haired artist. The artist as I see him retains the aliveness, the sensitiveness, the curiosity of the child. He has a feeling for the mystery of things. He may be a scientist, a gardener, a doctor, or a painter of pictures. He is sensitive to all sorts of impressions, to the thing we call beauty.

It is this contrast between the mechanic and the artist that challenges the youth of today. Are we to be machine men, the creatures of speed and of the cinema and the sensational press, growing as alike as the cars upon the road? Or shall we rebel against a mass production culture?

The young man's problem today is how to combine the artist and the mechanic. The artist will have to master the mechanic. Unless this happens, all our mobility and hurry and hustle will see us nothing but mechanized slaves. Youth must cry: "I will possess my soul."

Lindbergh is one figure of the age that symbolizes the mingling of the artist and the mechanic. And what a figure! It is winged youth, splendid and brave and chivalrous. It is no mere accessory to the machine. Lindbergh is youth pointing to the sky, but he points like a poet or an explorer, not like a mechanic. It is the spirit in which a man does a thing that matters.

During the War men grew strangely callous. There was so much killing that killing seemed natural. So it is with the machine. There is so much machine in life that whole masses of humanity are becoming insensitive to the reactions the machine cult has on them.

We cry: "All this is splendid. Man is being saved from shameful toil. His horizon is the whole earth. He can fly to the North Pole. He can sit and listen to a battle in China. Man is becoming a little god. In due course the machine will do everything for him, even dress him and shave him in the morning. The scientists will produce further wonders. We shall live on synthetic foods.

Perhaps we shall cease to die."

Quite so. But there is the old saying of the man who came to possess the whole earth and who lost his own soul. Are we to have the soul of a machine as our god and tyrant, or the soul of man? The trouble will be that we may fail to realize that we are the bloated little slaves of the machine. Masses of men fail to realize it now.

Youth, in this generation or in a later one, will rebel. It will cry: "Let me possess my soul in silence. Let me see the hills and smell the sea. Let the machine take me just so far and no farther, to the edge of that world where my spirit can play and sing. Let it be me that leaps into the foam or soars among the clouds. Let the machine be my servant, and money my slave."

This will happen. It will happen soon; or it will happen later. It is the great happening that is ahead of the youth of today. And how splendid it can be! We are so much at the beginning of things.

I have played with the machine, and I have come back to my garden. There are other perfumes than those of petrol and burnt oil. There are other things to see than the white glare of the road as it rushes under the wheels. We may rush hither and thither and be blind. I can foresee an age of stillness, and the youth of that age will look back upon this period of noise and confusion and say with wonder and compassion: "What fool savages those peoples were! They had too many new toys, and did not know how to play with them properly."

If the young man of today will dare to dream and to differ, this world can be a world of new splendor, new freedom. We may have to go out into the desert and fast in order to find our new God. The old gods have passed, and we have been tempted to make a god of our new cleverness. But only when we are artists do we begin to understand the soul of the Unknown Artist, and that is life.

Youth today has its choice. Will it mistake mere movement for life, mere speed for progress? Will the young man of today be content to be a half-skilled "hand" in a mechanized world, or will he choose to be the artist, the creative, dreaming, happy rebel? Only by dreaming new dreams until he dreams them into reality will he escape from the crowd. Or rather — he will transfigure the crowd, for we men must live together.

The problem is: "How shall we live?" Like one of H. G. Wells' human automata, like robots, or like men who somehow believe that the Unknown Artist watches us and smiles?

What Makes You Buy?

Condensed from the Outlook and Independent (October 30, '29)

Darwin L. Teilhet
Copy-writer for a large advertising agency

DO you buy cigarettes to steady your nerves, or for the enjoyment you receive from smoking good tobacco? Do you smoke cigarettes to curb a natural hunger when you feel like reaching for food, or simply because you feel like smoking? In other words, do you buy merchandise because it is dressed up in trick appeals, or because it satisfies in its original function?

This stunt of hitting upon an unimportant feature of an article and playing it up till it overtops the important question of intrinsic worth has stimulated the sales of many a product.

"*He wonders why he never arrives. Dejected! Blue! Success just failing to arrive — never attracts any girl friends — he hasn't any SOX appeal!*"

This advertisement, devised by a manufacturer of men's garters to combat the younger generation's habit of going without uncomfortable garters, is an excellent example of the new technic pulling at current advertising practice. The presence or absence of garters, you see, makes or mars the wearer's chances for a successful commercial and sexual career.

Open any magazine or newspaper and you will discover that this technic is spreading. A manufacturer selling a 25-cent tube of tooth paste exhorts the public in advertisements costing more than $12,000 a week to buy his tooth paste because they can save enough to buy an alarm clock; the efficiency of his article is passed off with a few airy and meaningless sentences. Yet some of us still hold to the old-fashioned idea that tooth paste is made to clean teeth.

Sex appeal is put into dandruff cures with the announcement that popular débutantes will scorn your advances unless this hair scurf is absent from your glossy mane.

"*Look at your gums. They ought to be firm and healthfully pink.*" This sounds like a medical advertisement for the mouth; but it is actually the line of attack of a popular breakfast food investing the product with the miraculous powers of curing and preventing oral troubles. Wouldn't you rather eat breakfast because it nourished you and tasted good?

Another tooth paste, containing an abrasive substance, guarantees to remove the yellow film from your teeth. Most dentists

will tell you a tooth paste is efficient if it can keep your teeth fairly clean from food particles. Such trick properties as removing tartar make excellent advertising points, but they may also take off quite a little more than the tartar from your teeth.

Yeast, formerly an adjunct to the baker, under the new advertising technic has turned into a marvelous medicine.

We are urged to buy davenport beds not because of their utility or comfort but because they "now move in high society."

A particularly vicious aspect of the "high society" urge is that men and women of our much-vaunted social structure are apparently willing to cash in on their ancestors' good names by endorsing, for a good stiff price, any wares that come along. A sincere testimonial is one of the best and most natural advertisements in the world, but you begin to look at them doubtfully when you learn that there are agencies that have contracted with many celebrities to sell their names as endorsements to any concern that has the hard cash to buy them.

It is becoming increasingly difficult to give mundane articles new values. Formerly it was easier. Sugar could be put up in pretty packages, common chemicals were made to appear as extraordinary discoveries, autos were given superlative qualities in each new advertisement, but today all this gold mine is worked out. The reader-mind is saturated with adjectives.

The copy-writer is harassed to dig out "something new." Before long he reaches the point where there is actually very little more that can be said interestingly about the simple operation of scrubbing your teeth with a mixture of chalk, soap, glycerin and flavoring extract. Like a shyster lawyer or a quack doctor, in sheer desperation he gives the product another quality. Besides cleaning the teeth it "protects the gums" or "sweetens the breath," and with this burst of genius a new selling point is created. This was the beginning of the new technic.

Successful articles *can* be sold on their intrinsic merits. Manufacturers who are proud of their reputations are doing it every day. You will find no incredible superlatives or loose general statements in Ford advertising. It tells you just what you may expect from a Ford car. Yet it is so dramatically sincere that it makes intensely interesting reading. Ivory Soap advertisements picture the sheer delight of bathing with this soap without frightening you into washing behind your ears to prevent some unmentionable disease; nor are you urged to use Ivory Soap because it has some

new miraculous power of making you socially attractive or commercially successful.

Steinway piano advertisements are famous for their beauty, their veracious content — and their ability to sell pianos. Parke Davis sets a new high standard in medical advertising. Kroehler spends over half of the copy space in a full-page advertisement telling you just how the frame of the Kroehler Davenport Bed is made. The "Save the Surface" campaign sold paint and varnish by definitely showing you how you could beautify your possessions and save money by making your possessions last longer.

Such honorable advertisements show that there are still literally hundreds of manufacturers who are proving every day that they can obtain advertisements that are bright, interesting, and capable of doing just as good a job of selling — and in most cases better — as the highly exaggerated type of work now apparently in style.

Responsible advertising men believe that unreliable, untruthful magazines or newspapers are not good advertising mediums because they lack reader confidence. Advertising can be filled with implications so subtle that they can pass under the guards of some of the most respectable publications in the country. The reader may very well ask how soon the time will come when the ethical advertiser, to protect himself and the buyer of his wares, will have to draw the line against magazines which are not so strict in their advertising contents as they are in their editorial columns.

This new rococo technic will destroy all belief in advertising if we continue to sell garters, not to sustain socks, but to attract female companions and greater social success. Fortunately most of the better advertising agencies realize the harm this stuff does and refuse to touch it at all.

The policy of ascribing new virtues to old articles is a veritable godsend to the lazy advertiser and allows him complete freedom with his imagination. Admittedly this makes excellent reading, but the next time you read an advertisement ask yourself this question: Am I reading this advertisement because it amuses me or because I expect to find honest, sincere information? For, in the long run, it is you, the reader, who will decide what kind of advertising you want.

New Modes in Biography

Condensed from Current History (November, '29)

James Truslow Adams

Author of "The Founding of New England" and other works on American history

MAN'S curiosity as to his fellow-man is perennially insatiable, often vulgar, sometimes cruel. It extends from the patient deciphering of a cuneiform text by a lonely scholar in order to discover facts about some ancient Assyrian, to the colossal mob-hunt of a whole nation to eavesdrop on a Lindbergh during his honeymoon. In book publishing this curiosity has swollen the department of biography to its present gigantic proportions.

One claim made by all of the new biographies is that they portray the *true* and the *real*. They may be divided, with some accuracy, into two groups: those which derive from superiority complexes; and those which derive from inferiority complexes.

Biographies of the first group appeal widely to our present age through their "scientific" flavor. Harry Elmer Barnes even goes so far as to tell us that the modern historian or biographer must master, not only the science of psychology, but also physiological chemistry, the glands, arteriosclerosis and all the rest of disease and physiology. All biographies written before 1900, he feels, are "rhetorical goose eggs" because there was "no valid psychology" before the last generation. If I may say so, this is sheer drivel. As usual we have to go to France for sanity. "What do we know about the medical history of the great men of the past?" writes Maurois in his *Aspects de la Biographie*. "What will be known in the future about those of the present? Who, at this moment, is making notes on the internal secretions of Einstein, studying the endocrine glands of Paul Valéry or recording the dreams of Bertrand Russell?"

Nicholson tells us that biography is distinguished from fiction as being truth. Yet when the unquestioned leader of this school of biography, Lytton Strachey, for four pages recounts the thoughts that pass through Queen Elizabeth's mind, are we not getting fiction as pure and undefiled as anything Thackeray tells us about Becky Sharp? Such recreating of another person's thoughts is not truth. It is, at best, a shrewd guess, though it *may* closely (and, again may not) approximate the truth when done by such a master of character analysis as Lytton Strachey.

There is, however, only one Strachey, and his influence has been little short of disastrous. The public cares nothing about distinguishing between his fact and his fiction. As soon as he leaves established facts, he works in exactly the same way as any competent master of character drawing in fiction, and because he is a master, he has achieved enormous popularity. The school of vastly inferior writers that has sprung up about him are for the most part engaged in writing what are merely biographical novels. Rarely, however, like Maurois in his *Ariel*, do they have the intellectual integrity to call their work a "Shelly Romance." For the most part, they play on the public's belief that it is getting "real" biography scientifically interpreted, and so combine the benefits of a market for both fiction and biography.

For most practitioners in this "scientific" school of psychological biography, it is far easier to imagine what a person may have *thought* than to weave what he *did* into a readable (and salable) narrative. The public gets all the "kick" of fiction with the soothing sense that they are dealing with something "real" and "scientific." That many of these biographers are not even thoroughly grounded in psychology is patent enough. As for careful study of their subjects from this most difficult standpoint — very few men could possibly give the necessary time to do it.

When we come to the other school of biography, that which I have described as springing from an inferiority complex, we are dealing with quite a different aspect of our age. Democracy and universal education have combined to bring into existence a vast reading public, without cultural standards, which is anxious to consider itself as good as any other class or any other age.

Was there in the past a statesman who was really great and incorruptible? Was there a poet or painter who believed in the greatness of his art? Were there scholars who cared nothing for the world? Were there men who, human enough and failing often for that reason, yet kept a sense of the intrinsic worth of human nature? Then away with them! Or show us that they not only sinned but were hypocrites, little men, smaller even than ourselves! Let us bolster up our self-esteem not by slowly working out for ourselves again a new philosophy of life but by pulling down all men of all times to our level. Set up the "debunking" school of biography and be quick about it.

This school has had an enormous vogue because its public is large. In this style, a "complete" biography of Franklin scarcely mentions his elaborate plan for a

union of the Colonies, but gives, as I recall, five pages to a smutty skit. In the foreword to the latest life of Caesar "we see the 100-percent Romans brawling drunkenly in their Forum — hurling execrations at one another in their Senate house — gloating sadistically over the butchery of unhappy gladiators with starved wild animals. They are fat, heavy-jowled men with greedy, cruel eyes. To make the picture perfect all they need is big cigars." That there were plenty of Romans of that type is true enough, but to explain and paint the Rome of the period of Caesar as solely made up of that sort is not to explain it at all.

Every biographer must exercise his judgment in the selection of material. In this type of biography it is evidently selected solely with a view to picking the last vestige of greatness off all humanity, or else the selection is simply pornographic. Many of these biographies remind me of the tourist who found himself on the ground floor room of a hotel mining camp with no curtains to the window. Having hung up his undershirt to afford some shelter from prying eyes, he soon found it drawn aside as a man looked in. When the intruder was asked what his business was, he answered, "I jest wanted to see what was going on in here that was so damned private."

As long as we have a large class that is literate without having any standards, we shall undoubtedly have biography written that is neither science, art, nor literature. Much of it has no more right to be considered seriously than the great mass of movie stuff that is put on the market for a similar type of consumer.

Meanwhile, the duty of the literary critics is clear: to say the truth about books as they come out; to distinguish clearly for the reader between the genuine science, in the sense of exact knowledge, of a book like Beveridge's *Lincoln*, and the pseudo-scientific balderdash of certain "psychoanalytic" studies; to distinguish between the scholarly presentation of facts, and the personal interpretation of states of mind, even when the latter are made with the skill and charm of a Strachey. As for much of the rest, it is as little worth a competent critic's attention as any other form of passing amusement devised for the mob. To treat such books seriously is to give them unmerited importance. In the present state of current criticism in America, however, I doubt if even the compiled scribblings on a Pompeian latrine would fail to find *some* reviewer who would hail it as a "profound psychological study, a human document of the first importance."

Trial Careers, or Trial Marriages?

Condensed from Plain Talk (December, '29)

Regina J. Woody

Former prima ballerina of the Folies Bergère and the Moulin Rouge in Paris
(see note inside back cover)

"HONESTLY, it is the queerest thing!" said Kathleen as she picked up her bridge hand with utter boredom. "You're the only one of our crowd who has had a career; and now that you've married and settled down, you're the only one of us who is contented!"

Norine slapped a card down vindictively. "Some days I could drown Bill and the kids with pleasure if I thought I had a chance of singing at the Metropolitan as Corio said I should!" There was a suspicious tremor in her voice.

"Gosh!" groaned Betty. "All I have is one baby, but he's one baby too much for me. I thought I was going to have a career as an interior decorator, but I haven't had time to do over even the nursery."

This was getting altogether too serious for bridge; but fortunately the tea-tray came in just then, and broke the tension.

"Don't you miss your career terribly?" It seems to me as if I've heard that question a thousand times. Sometimes it seems to me that every married woman I know is dissatisfied, and is trying to find out why I'm so contented with marriage.

Out of this Babel of discontent I believe I have found an answer to the problem. I believe I am happily married, not in spite of a career, but because of it; because I had a chance to try myself out in the business world before I settled down. I know just how much I can earn, and just how much hard work is required to earn it. With most of my friends the mere words "business" "stage" and "art" conjure up mirages of perfect freedom, tremendous salaries, and exotic good times. Never having had a job, they have no idea of the difficulty in getting and holding positions that pay good money; never having known the necessity of working, or even going out of the house when they did not feel well, they fail to realize that neither illness nor bereavement, blizzards nor sultry August heat, excuse the wage-earner. Few women realize the continuous effort required to earn even a mediocre success; nor have they the vaguest conception of the steadfast purpose underlying the

achievements of women like Pavlova, Mary Roberts Rinehart, or Jane Addams. Seeing only the happy results achieved, these indolent young wives are enchanted and long to do likewise.

I feel therefore that the answer to many unhappy marriages is not "Trial Marriage," as some educators suggest, but "Trial Careers." I should like to take women before they had tumbled into a soft job of bed and board and put them into competition with thousands of others of their kind, matching them against talented youngsters greedy for life's sugar plums. A year, perhaps a few months, would show these young business women that fun must often be curtailed because of lack of funds, that expensive theater tickets are few and far between when bought and paid for by themselves. Surely, after these facts have been forced on their attention, the simple joys of suburban life will become more apparent. The mere fact of having eight sunny rooms, instead of one dingy cubicle on an east-side street, will be something to gloat over. Freedom to work or to rest, to sit in the sun and read while baby sleeps, to gossip without getting a blue slip in one's envelope — freedom to be themselves with no hampering restrictions of hours or environment, would seem little short of miraculous.

Too many young girls make trial marriages before trying themselves out in business, and as a consequence they have an inflated idea of their own importance as well as an erroneous idea of the ease with which success can be obtained.

Many a modern girl who has found a young man with a proper income acquires the right to put Mrs. before her name, go to matinées and complain about the housework in the new seven-room house; and with nothing more violent to do than to feed one or two offspring puréed spinach and mend silk socks, she invariably muses on the trap Fate has sprung on so pretty and so unsuspecting a young woman as herself in making her a slave to house and children and not permitting her to express herself at all; when, of course, if she only hadn't married she could have had a "Successful Career."

And this is the beginning of the end. Almost invariably will she retrieve one of the pretty parlor tricks of her lost youth and begin to polish it up. The next thing is to take lessons in her art. She parks her children hither and yon; she pauses to select a new dress and a new fur coat to wear to class, and thus to dazzle the instructor into thinking her a genius. Her lessons cost more than the winter's coal, and sap more energy than would the housecleaning of a 20-room house. But,

of course, a wife must express herself!

It will usually appear, after one or two year's lessons in whatever has been taken up, that this particular wife discovers some other talent equally in need of attention, and so decides to let the first one lapse while she cultivates the new. As the process goes on to several unsuccessful conclusions, she gradually begins to feel misunderstood.

Careers for wives in some cases are the honest expression of determined folk actually to "do something." To such I have nothing to say; for these people are never overworked, never misunderstood. They never blame failure on another, but put it squarely where it belongs, on themselves; and in so doing they lift themselves a step higher on the ladder of success by studying harder, working longer, and eventually achieving more. There is no more reason why a wife should not have a career than that she should not have a baby. I only say that she will have either one or the other, or both, without grousing about it, if she really wants to.

I hate to see marriage tarnished by lack of appreciation on the part of the modern woman. If women would only have real careers before marriage, there would be no need for them to indulge in purely imaginary ones afterwards. "Trial Careers" would avert many more divorces than companionate marriage ever will. The knowledge of what a woman is actually worth in dollars and cents to the business world would teach many a frivolous woman that business is not all pleasure and that the odds in marriage for women always have been, and always will be, two to one in favor of her happiness.

In point of fact, I think trial careers would do away with trial marriage entirely; for there is no trial when two persons have measured their abilities by the yardstick of the world, and having been measured, know themselves accurately. Two persons who understand themselves will never, I believe, have any difficulty living happily together after marriage.

It is the false glamor of ease and excitement surrounding success which so often blinds the uninitiated to the actual amount of work involved and which leads many an immature young wife into believing that a "career" is all play, while marriage, due to her own disillusionment, seems to her merely a dreary round of labor. Previous contact with a career would surely teach her that in both business and marriage work is fairly evenly divided, and lead her to realize, along with Stevenson, that "to travel hopefully is better than to arrive, and that the true success is to labor."

Flying Blind

Excerpt from The Saturday Evening Post (November 9, '29)

Donald Keyhoe

THE specter of flying blind, bugaboo of even the most skilled pilots, is gradually giving way before the application of invention and research. Recent tests have shown that one of the gravest dangers in blind flying is the pilot's disbelief in his instruments, and a strong tendency to trust his own senses, which are always misleading.

The tests consisted of placing skilled pilots, blindfolded, in a rotating chair. The chair was slowly turned to the right and stopped. The pilot stated that he was turning to the left. Whenever the rotation was stopped, or the speed retarded, the pilot announced that he was turning in the opposite direction. If the pilot were turned continuously and steadily, he would eventually think that he was sitting still. Finally, if the turn were made very rapid before stopping, there was an added feeling of falling.

A hooded chair was later made with instruments to show the actual movement. The pilots refused to believe the instruments till the hood was lifted and the true movement disclosed.

This most natural tendency to rely on sensations instead of instruments has probably been responsible for the failure of many transoceanic flights. One of these was the fatal attempt of Captain William Erwin to rescue other ocean flyers in trouble on the Pacific. At night, 600 miles out, his radio reported running into heavy fog. Then, "We are in a spin." Next came a reassuring report, only to be followed by the last one heard: "We are in another spin. S. O. S. . . ."

Flyers ashore easily reconstructed the scene. Tossed in the bumpy air, the plane started to turn to one side. The pilot checked it suddenly, and at once his treacherous senses told him he was turning in the opposite direction, so he pushed hard on the rudder, and in the wrong direction. The ship skidded, stalled and spun. On getting out of the spin he had the same sensation of those tested in the chair — of turning in the other direction and falling. Believing himself in another spin, he nosed down to regain control — and dived straight into the sea.

Later, a pilot tested under identical conditions went through precisely that maneuver.

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Books Will Do It!

Condensed from Brentano's Book Chat (January–February, '29)

Ben Ray Redman

ALL of us, at one time or another, have given and received books. Yet few of us realize what curious transformations may be wrought among our friends by judiciously choosing such gifts. We are too ready to buy the right book for the wrong reason, and give the wrong book for no reason at all. It is time for something to be done about it. Nothing will be done, of course, but it is time.

One reprehensible thing about gift books is that they are often selected as the books we think we should give, as the suitable books. We give our nephew "Scottish Chiefs" because we think he ought to read it, and we give great-aunt Jane "The Vicar of Wakefield" because we are sure it is the kind of book she likes. We are making a great mistake. Left to her own devices, great-aunt Jane might very well purchase "The Vicar of Wakefield," but why should we do for her what she can very well do for herself? Wouldn't it be more enterprising, more original, and in the long run more beneficial to the recipient to send her (shall we say?) an unexpurgated translation of "Mademoiselle de Maupin" or Cazanova's "Memoirs?" These works would remain unknown to her but for your inspiration. The gift of "The Vicar of Wakefield" would surely win us a polite vote of thanks, but what would the others win us? Imagination pauses, modestly.

The case of great-aunt Jane leads us directly to the crux of the problem. Is it the taste of the giver or the presumed taste of the recipient that is to be respected? Or, as a third alternative, may we combine suitability with irony? The last possibility is decidedly attractive. It seems to me that there might be a certain satisfaction in giving "The Principles of Sound Investment" to an acquaintance whose broker had just sold him out in a plunging market, or "Sex at Choice" to another acquaintance whose wife has just given birth to a fifth daughter when a son had been ardently desired; but such satisfaction would doubtless be contemptible.

We might almost say that gifts make the man. Carefully chosen, they can very well make the man. Let us suppose that I am tired of my friends looking upon me as a golf-playing idler. I aspire to

another personality. How shall I create it in the minds of my friends? Books can do the trick. Having decided what I wish to become, I choose my gifts accordingly. One Christmas I send out copies of Gilbert Murray's translation of Euripides to all and sundry; the next Christmas I let go a barrage of Mackail's selections from the Greek Anthology; and the third Christmas I buy up all available editions of the fragments of Sappho. By that time the job is done (although I still hold Pindar in reserve); my personality is established. "He's an odd duck," they say. "Knowing him casually, you would think he was interested only in golf and all that sort of thing, but actually he is frightfully keen on Greek poetry. It's his hobby. Never suspect it, would you?"

Dishonest? Of course — but it has such possibilities! Imagine, again, a man who foolishly enough desires to be a great lover. Nature has blessed him with a stature that puts him on tiptoes in the smallest crowd; there are hollows where his biceps should be, and his calves are incapable of supporting garters; he stutters and his hands are always damp from diffidence. Should he despair? Not a bit. If he gives his friends the "Autobiography of Benvenuto Cellini" he is made. Let him follow it up with the works of all the amorous scoundrels who have ever set pen to paper, and before he knows it he will have to hire a secretary to keep track of his engagements.

There is no doubt about it, we have regarded book giving too casually. Any book will do, has been the slogan. Every book should count whether it be for the education of little Jimmy, the corruption of great-aunt Jane, or the creation of a desired personality.

(Continued from page 838)

Out of these experiments one important fact has come to light. Once a pilot has been shown that he must trust instruments and not his own senses, he can learn to fly blind — indefinitely. Lieutenant Doolittle recently took off in a plane with a hooded cockpit, flew a 15 mile course, returned to the field, and made a perfect three-point landing — without seeing a thing but his instrument board.

The final step will probably be taken soon when the automatic pilot is adopted. Such devices have been successfully tested. The automatic pilot keeps the plane level without attention from the human pilot. This completely frees the pilot from the strain of constantly reading two or three shifting instruments.

On Getting into Ruts

Excerpt from The Christian Science Monitor (November 11, '29)

ALMOST everyone who hears of it is amused at the rigid routine of daily activity that was prescribed for himself and exactly carried out by Immanuel Kant. Winter and summer, he rose at five o'clock every morning, studied two hours, lectured two, and spent the rest of the time until noon at writing. He then took his only meal of the day at a restaurant, walked for exactly an hour by the watch with his man-servant following twenty paces behind, umbrella in hand, and returned home to read until bedtime. This regimen he maintained for more than half a century. He never traveled more than 40 miles from his native Königsberg. During nearly all of his 80 years he walked a beaten round. He wore a rut, and he stayed in it. He seemed to enjoy ruts.

To most people the maintenance of this exacting routine seems at best an amiable oddity. Most of us would feel that knowledge is increased almost exclusively by stirring about, by seeing new faces and places, or, in short, by keeping out of ruts. Our sympathies are all with the sort of character exemplified by Tennyson's Ulysses, whose wisdom and knowledge had grown in constant travel, in personal observation of "manners, climates, councils, governments." Like Ulysses, we "cannot rest from travel," and we have no notion whatever of the advantages to be gained by sitting still and letting the world come to us. Consequently, it seems to us simply inexplicable that the little man who never left Königsberg, a second-rate Prussian town, and who never varied for half a century the even jog trot of his routine, should have been one of the best-informed men in history, and one of the two or three most influential thinkers of modern times.

But perhaps we have not been quite fair to ruts. The example of Immanuel Kant is by no means unique, for everyone will think at once of Henry Thoreau who was as singly devoted to his native Concord as the German philosopher to his little town. "I cannot but regard it as a kindness in those that have the steering of me," he writes, "that I have been nailed down to this my native region so long and steadily, and made to study and love this spot of earth more and more. What would signify in comparison a thin and diffused love and knowledge of the whole

world instead, got by wandering?"

Thoreau and Kant would have understood and approved the remark of Hamlet that he could confine himself in a nutshell and yet count himself a king of infinite space, for they both realized that freedom, far from being lessened, is positively and often greatly increased when we lay certain external restrictions upon it. Greater freedom, indeed, and nothing else, was what Wordsworth sought when he wrote in his Ode to Duty that he had been fretted and worn by unchartered and unrestricted liberty to do as he pleased. A rut, in other words, may be a great simplification, as everyone knows who has driven an automobile over soft country roads. In that situation the rut, even though we sink down in it to the axles, is greatly to be preferred to the boggy meadow and also to the soft shoulders of the road; it is often the only possible means of getting through.

Something of this sort is probably the explanation of the large amount of work often done by persons who are obliged to give the greater amount of their time and strength to some prescribed activity. The success of George Grote as an historian may have been won not in spite of the fact that much of his time had to be given to banking but in some degree because of that fact, and we may possibly attribute the brilliant writing of Walter Bagehot to a similar cause. These were business men. Chaucer was also a business man. All three were men of routine. It is more than possible that they did so much for literature because they had something else to do, because they were following ruts of daily routine which gave regularity to all their efforts.

Perhaps it is only the rut that we cannot see out of that deserves the bad name all ruts whatsoever are nowadays given. But surely there can be very few of these in days such as ours. Very important it is to observe that a rut in the 20th century is a decidedly different thing from a rut of a hundred years ago. We can now bring far more of the outer world into it. Kant brought the knowledge and intelligence of the world into sharp focus at Königsberg and Thoreau's thought traveled abroad from Concord to ancient Greece and Rome, but the opportunities of one who sits quietly at home today are vastly greater than those that these two men enjoyed and used. In addition to the written and the printed page which was their chief means of communication with the outer world we have the telephone, the telegraph, the radio, the cinematograph, modern journalism,

photography, the airplane, and many other such devices for making ruts glorious. One who lives in a hermit's hut in the midst of a wilderness today may know much more of what is going on in the world, may hear more music and see more people and think more world-wide thoughts, than the citizen of a metropolis did a century ago. The rewards of sitting still and waiting have always been great, but they have never been so obvious as they are today.

And this is only a small part of what may be said in favor of ruts. Who gets the most solid and enduring happiness out of reading? Clearly, the reader who returns again and again to one author, one book, one passage. To whom does friendship mean most? Probably to the person who has few friends but those of long standing and intimately known.

If the truth of this be granted, then certain practical consequences follow. Almost all of us, today, are bound in some sense of the word to a fixed routine; in some degree we are obliged to move in ruts. But why should we not look at the definite advantages of the situation?

The place that we cannot get away from sets us free when we cheerfully decide that we would not leave it even if we were able, and it becomes a watch tower from which we look out over a wide surrounding country. The routine to which we have seemed tied becomes a source of strength and gives a liberty such as purposeless drifters can never know when we accept it as our own.

Why is it, then, that ruts have acquired so unfavorable a reputation? Why is it that we are continually warning one another not to "get into ruts"? The reason for all this is, apparently, that ruts are frequently misused. People sometimes get into them, it would almost seem, with the primary intention of hiding themselves and of shutting away all the prospect of the outer world together with as much as possible of the light that streams in from above. There are some who get into them with the apparent intention of thinking no thoughts except those they have thought a million times before, whereas their purpose should be to think more adventurously than ever before for the reason that they can now think more quietly and connectedly. This, at any rate, was the way of Immanuel Kant and of Henry Thoreau — two lovers of ruts who lifted not only themselves but many thousands of their fellow men to higher levels of intellectual adventure. While their wheels ran smoothly down the old grooves, these two looked eagerly about them admiring the landscape and discovering many strange things.

The World's Worst Waste

Condensed from Nation's Business (November, '29)

Mark L. Requa
Former General Director, Oil Division, U. S. Fuel Administration

AS late as 1905 we spoke of the "iron age." But now the petroleum industry represents twice as much capital investment as the steel industry.

Petroleum, the liquid mineral, has its own problems. It may lie under your land, for instance, and under mine next door. If I sink a well, I may get both my oil and yours. This fact may lead you and me to wasteful competition in sinking wells.

Petroleum is largely a self-mining mineral. It is likely to have gas pressure back of it, which forces it out when a well reaches it. Gas, in fact, always occurs in conjunction with oil. This gas also has a value. The housewife can use it for lighting and cooking.

Countless millions of dollars' worth of this gas have been lost and are still being lost through allowing it to go off into the air. Three oil fields near Los Angeles, it has been shown, have wasted enough gas in two years to have supplied that city for a quarter of a century. The gas waste in California is as great as though 25,000 tons of coal daily were bought, paid for, piled up and uselessly burned.

Yet this is not the worst of the situation. The gas pressure is vital to the production of oil. When enough gas has escaped there is no longer sufficient pressure to force the oil to the surface. An oil field may produce only a fraction of what it could produce, leaving the rest inaccessible in the sand. Frequently not more than 35 percent of the oil is recovered from a field and sometimes, it is said, the percentage is not more than ten.

Yet it is possible to capture most of the gas as it emerges, extract certain gasoline from it, use it commercially, or force it back into the earth to help maintain necessary pressure. In California agitation against this loss of gas has been going on for years. Still, of 1400 million feet of gas produced daily, only 700 million feet are used, and but 18 million feet returned to the ground to maintain pressure.

Drilling too many wells on a given area is another wasteful practice. It has been shown that one well to ten or 20 acres is usually sufficient for the development of a field. Frequently, however, ten or more wells are drilled on a single acre. A hundred wells

where one should have been, and both gas and oil wasted from every well!

The Santa Fe Springs Field, near Los Angeles, is an example of this sort of drilling. Everybody that had a bit of land put down a well, and it has been estimated that $250,000,000 has been spent in drilling unnecessary wells.

In this same area another type of folly was demonstrated. It became known, after years of producing, that there was oil at a lower level. There was already an overproduction of oil, and the wise procedure would have been to leave the oil safely stored where it was awaiting favorable conditions. At a conference of the operators, 85 percent agreed to await better market conditions. A 15 percent minority was unwilling to wait. It began drilling lower, and the others had to do the same.

Thus, despite adequate knowledge of what should be done, a great excess of wells was sunk and the oil from the lower levels brought to the surface when it was not needed. This sort of procedure is called town-lot drilling. It is likely to make storage above ground necessary, which immediately adds 50 cents to the cost of a barrel of oil. It cannot take care of the gas produced. It is wrong in every way. It is typical of this industry, which, despite its enormous size, is practically without coöperative organization.

A business is indeed in a poor plight when the finding of new sources of supply, a blessing under proper conditions, causes a whole industry to shudder. Yet this is exactly what happens when a new oil field is brought in. I once sat in a meeting of oil men at which it was seriously proposed to burn 500,000 barrels of stored oil for the sake of the condition of the market.

There are, on the other hand, plenty of examples of the right sort of development. Salt Creek field, in Wyoming, for instance, is controlled by a few producers who agreed on unit operation. They measured the production capacity of each well. When the market and pipeline capacity made it necessary, they allocated 20 percent, 50 percent, 60 percent, production to these wells.

The same sort of thing has been done at other places. Methods are well known. The trouble is practically always caused by willful minorities.

The life of an oil field is short. In the past, half the field's production has come in the first four or five years. The other half might come over a decade or generation with an ever decreasing output. Three percent of the wells, the big ones, produce 50 percent of the oil — while 300,000 wells produce the other 50 percent.

Only a foolish grocer would keep pouring molasses in a jug already running over. But this is exactly what the oil people are doing. The Government sees all this. The industry sees it. Even the majority of individual oil men see it. But nobody dares stop lest the other fellow get ahead of him.

Fortunately the President has inaugurated a conservation movement, calling for concerted action among oil producers. Yet it is a problem to bring this about. How can a state bring about unit operation in a field? How can it prevent production when there is already too much oil above ground? How can it prevent wasteful operations? How can one state cut down production without giving another state an advantage? How can oil which is fit for such refined services as propelling airplanes be withheld from performing the work of coal?

One method of treating converts 40 percent of crude oil into gasoline. Other easily attainable methods produce 60 percent or more of gasoline. If the industry achieved 60 percent of gasoline from its crude, it could provide fuel for nearly 30 million automobiles and use 250 million barrels less crude oil every year.

The underlying problem is to draw up an agreement that will be approved by the landowner, the royaltyowner, and the leaseowner.

A striking demonstration of the possibility of writing such an agreement has just been made. A year ago the stupendously rich Kettleman Hills oil field was found in California. Some of the land in it was Government land. Oil was not needed at that time, but the Government had no authority to hold up production. Despite this, Secretary Wilbur secured an agreement from the various interested parties not to produce for a year and a half, and in the meantime, to study the possibilities of coöperative development. Kettleman Hills, it would appear, is to become a demonstration of the proper handling of a great oil field.

This was accomplished through persuasion. It brings up the vital question of how the minority percentage — for it is undoubtedly a minority — can be made to conform to what is undoubtedly in the public interest.

If such a power existed equally in all the interested states and was used when the industry itself asked its use, it would provide a proper method of regulating the production of crude oil and a proper opportunity to conserve for the interests of the nation and the people this mineral so much a part of our national life.

Why Cheap Labor Down South?

Condensed from The Virginia Quarterly Review (October, '29)

Broadus Mitchell
Economist of The Johns Hopkins University

AT this writing there are probably more workers on strike in the textile South (some 10,000) than ever before. The strikes come at a time when the textile industry is moving from North to South to take advantage of low labor costs; and the situation is rendered more critical by reason of the lessened demand for women's cotton dress goods (50 years ago a woman wore nine pounds of cotton and now her clothing, mostly not cotton, weighs nine ounces), and the growing ability of the Far East to supply its own needs.

Public interest centers less in whether the Southern textile strikers gain their demands than in the indirect consequences — whether unionism will get a foothold, whether public sentiment will effect improvement in low standards of labor. And these questions bring the query, Why has Southern mill labor been conspicuously passive heretofore, in the face of low wages and long hours?

Three points of departure present themselves: 1. The character of the workers; 2. Policies of the employers; 3. Opinion of the public.

1. The operatives, 280,000 of them, or 60 percent of all the cotton mill workers in the country, are almost entirely the Southern Poor Whites. Before the Civil War, slavery pushed them out of the picture. They became tenant farmers, or "share-croppers," or eked out a primitive existence in the hills. They were mostly illiterate. They had little, if any, real money; those on plantations lived on credit and those in the hills by poor farming.

When, 15 years after the Civil War, cotton factories began to be built in the South, the Poor Whites became operatives. The mill builders had two motives in using this labor supply — it would be plentiful and cheap, and it would be an act of charity and patriotism to give them work. Anyone who doubts the second motive should remember that in the Reconstruction period all Southern Whites were drawn closely together in opposition to the carpetbaggers and Negroes.

The workers came as a body from the country in the beginning, and they have continued to do so as the industry expanded. Hence the Southern factory "hand" has a rural mind. Indus-

try has meant a release from agricultural serfdom; it has brought relatively certain cash wages. These two prime benefits have acted to postpone criticism of the employer on the part of the worker.

Many of the first mills being located on isolated water powers, managements built villages for the accommodation of the tenants and mountaineers. Later mills have continued the policy partly because there were no other housing facilities, and partly to control their labor. As years passed, company-owned towns became more and more elaborate, and contained stores, schools and churches, welfare buildings, swimming pools, movies, day nurseries, and whole social service departments.

The paternalism of the company town — all-inclusive and intimate — has done more than any other thing to make the workers uncomplaining and dependent. The employer meant to the workers much besides a provider of wages; he was their religious, social, and domestic mentor as well. Consequently workers could not protest against low wages or long hours or the prevalence of child labor without jeopardizing their contentment in every other direction.

The operatives in company towns have been stall fed. They have received a considerable part of their compensation in kind — gardens, medical attention, free pasturage, wood and coal at cost, and, above all, exceedingly low rents (about a dollar per room per month). They have not known what it is to live on a cash wage as such. And since the companies refuse to let houses except to families which can furnish two, three, or sometimes even four workers to the factory, it has been hard for members of the family to break away to other employment.

Living under patronage, the mill population has come to rely heavily upon the company. The mill village has some time since become a means of repression of the worker, consciously maintained by the employer because it is profitable in dollars and cents. Also the mill people, living in separate communities, have come to be looked upon and to feel themselves different from other people. Hence they do not come in contact with common currents; they are shut off, for instance, from such groups of organized workers as the South possesses in the building trades.

Low wages and long hours have not allowed them the means or energy necessary for turning their attention to plans of collective self-help. The average Southern cotton mill worker received in 1927 (the latest available figures) a wage of $12.24 per week. Earn-

ings in the North were in 1926 about 55 percent higher than those in the South. The legal limit of working hours per week for North Carolina and Georgia is 60 hours; in South Carolina it is 55; Alabama has no legal limit. Massachusetts, on the other hand, has a limit of 48 hours. In 1919, 36 percent of the Southern workers were women and 4.9 percent were boys and girls under 16.

2. One is bound to say that the tradition of Southern chivalry is at a discount when it touches the relations of cotton mill managers with their workers. The true attitude of the employer, not to be excused by his paternalism, comes out in instances of strikes. Boasted friendliness of mills to men has proved to be a fair-weather policy, completely dropped in a squall. Southern employers have been ready to use the old devices — troops and hastily enlisted deputy sheriffs; expulsion of organizers from company-owned towns for trespass — in the present strikes even the kidnapping of labor leaders; prompt use of strike-breakers (in one case, at least, Negroes); discrediting of leaders by arousal of racial, sectional, and religious animosity.

3. The cotton mill workers have had little assistance from public opinion. The South has always been less aware of the need for justice between classes than of the appropriateness of kindliness shown by a superior to an inferior. Graceful patronage has been all that public opinion demanded. And industry is still new in this section. The people do not know its necessary outworkings.

The churches have had little to say on the subject of low wages and long hours in the mills. Colleges and universities privately supported have been too anxious to get funds to run the risk of alienating possible givers by forthright analysis of industrial conditions. Professors in large numbers know the facts and would like to draw obvious conclusions, but they feel that their jobs are at stake. In a few instances, however, there has been hopeful improvement in frankness recently.

How long will it take for us to recognize that the South is no longer only an agricultural society — that we have opened our arms to capitalism, and must develop the usual methods of rendering it wholesome for all concerned? An additional vexation in the answer is the likelihood that, when improvement for white workers comes, ten million Negroes may be turned to as a new labor resource — a group large enough and needy enough to invite repetition of the whole painful process of industrial betterment.

The Chirotonsorial Profession

Condensed from The American Mercury (December, '29)

Maurice S. Sullivan
A newspaperman

PATRONS of American barber shops cannot have failed to notice, of late, a new dignity in the attendant shearsmen. Those who stand disengaged are not reading a pink journal designed to appeal to policemen, or even monkeying with the radio. A change has come about through the epochal discovery that barbering is not only an art, but also a science.

But "barber" is no longer the correct word. As Mr. Joseph De Silvis of Philadelphia, creator of the Windblown Bob, has said: "The word barber has run its course. A new and more professional term must be coined. What shall it be?" Mr. De Silvis himself was hot for *beautician;* such words as *dermitonsor* and *dermatician* have also been proposed, but at present *chirotonsor* seems to be the most popular term. The problem of what to call the new professional suite also demanded thought. *Dermashop* and *dermistry* were suggested. But now *chirotonsory* is in the lead. The greatest boosters for it were in California, which has always been hospitable to the tendency that makes a real estate dealer a realtor, a beauty shop girl a cosmetologist, an undertaker a mortician, and a corn doctor a podiatrist.

Ten years ago, if you had suggested to any barber that he might attend a university to get a better knowledge of his trade, he would have thought you demented. But now, under the direction of John Winter Rice, Ph.D., B.Sc., M.S., M.A., Bucknell University has instituted a course in sanitation and hygiene for barbers. As Mr. Henry J. Oehman, president of the Master Barbers of Racine, Wisconsin, says:

> The master barbers of today are educated. There is an existing law which requires at least an eighth-grade education before any man can study the barbering profession. Very soon this will be amended to require a high-school education, and ultimately no man will be permitted to study barbering unless he has had a college training.

The fate that is in store for the patients of these new doctors of chirotonsic science may be guessed from these words in the *Master Barber*, "official organ of the Associated Master Barbers of America":

> The chirotonsor is still stumbling along asking customers what they want. Can you beat it? . . . The chirotonsor could step into a professional office, explain to clients what they could have or ought to have, and collect a professional fee.

Nobody, however, sees a rosier future than Mr. J. C. Shanessy, president of the Journeymen Barbers' International Union of America:

> It is within the power of the barbers of America not only to direct the trend of public opinion, but also to elect the mayors, Governors and Senators that govern the land. The man at the barber chair shaves the leaders of his community. . . . It is my sincere belief that, if the barbers of America will stand together, it is within their power to elect even the President of the United States.

Every up-and-coming professor of chirotonsic science now has in his possession the Standard Barbers' Manual. This manual begins by impressing on the chirotonsor that the earliest records of barbers show that they were always the foremost men of their tribes — how gifted dermaticians ruled in ancient Asia; how highly respected the depilatory engineers were in Egypt of old; how they reached the uttermost pinnacle of their glory as the barber-surgeons of the Middle Ages, when chirurgery and dentistry were but minor branches of the ancient art. Then there are chapters on anatomy, electricity and chemistry as well as in honing, shaving, haircutting, ethics, hair dye, facial treatments, salesmanship and business conduct. Under the heading "Things to Remember" are short instructions such as:

> A sloppy mug driveth away patronage.
>
> A shear and comb artist has the same opportunity to display skill as does the sculptor or painter; therefore acquire skill and be famous.

Clambering up to his new heights, the professor of chirotonsory has bumped smack into the mysterious thing called ethics. There is a division of opinion in the ranks about tipping. The controversy began to sputter in 1926 when the Associated Master Barbers of America officially condemned tipping, since it detracted from the dignity of the profession. The majority of those in the ranks, however, seem inclined to tolerate it. When a doctor of chirotonsory, they say, exerts himself to perform a particularly skillful operation in accordance with the most advanced principles of science, it is not unethical to accept a silver offering.

There is a tendency in the tonier studios to foster the belief that silence is golden; but the profession at large feels that if the chirotonsor fails to make his treasures of information available to the ordinary citizen, he is losing an opportunity for Service in a really big way. The public press has tried to help in solving this question. Thus, the celebrated Inquiring Reporter of the Chicago *Tribune*, proceeding on the theory that five men can't be wrong, went to the Man on the Street and asked: "Do you prefer a silent or a talkative barber?" The result was very depressing.

Four out of the five citizens were in favor of throttling the chirotonsor.

Since he has attained to professional status, the chirotonsor has had impressed upon him that his primary purpose in life is not making money but Service. He has a duty toward mankind. Several ways of discharging this duty have been devised. Thus a former editor of the *Master Barber* feels that the chirotonsor should educate his patients to the use of perfume.

> A human being simply loses one chance for individual strength, strength of character, delicate enjoyment and appreciation of the possible joys of living if he neglects to associate himself with a delicate perfume of his choice.

Another notable contribution appears in the *Western Barber* under the heading, "Pet Behind the Ears."

> By stepping behind a man after he has seated himself comfortably in a chair, and moving your fingers in a circular movement around the main facial nerves that lay just under the ears he is soon relaxed and settled, ready for the clippers or the razor.

The writer adds that he has found this service "pleasing to practically all my customers"; but he neglects to record, clinically, the reactions of those patients who were not pleased.

The really big wallop for Service, however, is put across in Look Well Week. This Week is not to be compared with Eat More Bran Week, National Sauerkraut Week and similar money-getting devices. The object of Look Well Week is Service alone. Little can be done in this Republic without a slogan, and so the elegant refrain was devised: "It Pays to Look Well." As the *Master Barber* said:

> To our patrons we are going to impress the lesson of "It Pays to Look Well. . . ." It is up to us to help our patrons bring out the best that is in them. No higher duty, no more sacred privilege, exists. . . .

The chirotonsors were advised to deliver their message of Service by the use of posters, advertising, free haircuts to orphans, and so on. In Kansas, where barbers believe in doing things right, the members of three local barber associations got together, motored to an institution, and gave 66 children and 82 old men free chirontonsic attention. Similar feats of Service were performed from one end of the country to the other. Millions were made "barber shop conscious."

Of course it was unavoidable that a good deal of free newspaper publicity should follow the haircuts, and that receipts in the tonsoria should increase. But that only goes to show that the virtuous do not always have to wait for a better world to get their reward. There seems to be a hint of this in a poem in the *Square Deal* which concludes:

> In this great old world of conflict and strife,
> Where we battle each day for gain and life,
> The winners have proved this slogan old
> "It Pays to Look Well" opened wide gates of gold.

The Russian Industrial Vision

Condensed from The Nation (November 13, '29)

Oswald Garrison Villard

Editor of The Nation, who accompanied the Russian-American Chamber of Commerce on a recent tour of Russia

TO the stupendous task of rebuilding an ancient commonwealth, the Bolshevik leaders have set themselves with such determination, devotion, and daring that, if it were happening in any other country, the world would be ringing with their exploits. With the Revolution has come to the Russian masses a thirst for a richer life. The Bolshevik leaders, who themselves have fostered this promise of a richer life, must race against time to produce the necessary goods, provide the jobs for a population increasing at the rate of three and a half million a year, and reduce the cost of living, lest a genuine opposition arise to dispute their iron-handed oppression. Hence their "five-year program" for the industrialization of Russia.

The Bolshevik leaders hope not only to put their country productively on a plane with the United States; they even hope to surpass this country by cutting out the waste which comes with private ownership. The head of the great Putilof iron works, who has recently been in the United States, assured me that the great American plants devoted 40 percent of their expenditures to advertising, and salesmanship. In a non-competitive industrial state this disappears. Moreover, the Russian plant has an extraordinarily low overhead in salaries. The head of the Putilof factory receives the regular Communist stipend of 250 rubles a month ($125) in addition to a modest apartment. A similar executive in the United States would receive $50,000 or $75,000 a year, and would have highly paid vice-presidents and assistants. If, in addition, the Russians succeed in infusing into their workers the spirit of working for *all* instead of for themselves (and the American engineer who is building the huge tractor factory in Stalingrad told us that he did find this spirit among the workers), they will produce with a cheapness no capitalist industry can equal.

At present, however, other industrial nations have nothing to fear from Russian competition. It will be generations before the Russian factories can supply the wants of their own people. Efficiency has by no means been everywhere achieved. At Dnie-

prostroy 12,000 Russians are doing what 3500 Americans would achieve. Everywhere, however, are competitions in efficiency between shifts, pictures showing what the factory was expected to produce under the five-year plan, and manifestoes signed by the workers pledging themselves to end waste and inefficiency.

Russia is the only country in which inefficiency is a crime. One American engineer told us that he was informed on his arrival that it meant life-imprisonment if he were caught grafting. He told of a man about to go on trial for having failed to move some great piles of gravel on time. Recently nine directors of the Shipbuilding Trust were to be tried for building unseaworthy ships. If they are found guilty they are likely to be shot, as were the engineers who were executed for sabotaging the work in the Donetz mines in 1928.

Grafting by a Communist is a deadly sin. One hears much outside of Russia of the higher-ups lining their pockets. I did not find any reliable observer in Russia who took any stock in this. Colonel Hugh L. Cooper, the distinguished American engineer who is supervising the construction of the Dnieper River power plant, says that he has disbursed under the Soviet $600,000,000. "The most glorious thing in Russia," he added, "is the absence of graft."

Another fact about the Russian industrial revolution may in the long run be serious for business competitors. Great efforts are made to bring out the creative abilities of the plain workingmen, and the heads of great enterprises are remarkable examples of men who have risen from the lathe or the work-bench. The degree to which this is done surpasses anything we have even in America. For instance, I doubt if there is a single American factory which has on file 1400 suggestions and inventions received from its 2300 workers in one year. In Russia this bringing out of the creative impulses of the workers is a fundamental government policy.

Russia needs all the engineering and executive talent it can find. The Russian engineer is one of the highest-grade technicians in the world, but he often lacks something when it comes to practical matters. He has vision — if anything, too much. It is related of an American engineer in Russia that he was asked to study a new electric-power project involving $50,000,000. He read it, laid it down, and then said: "I wish one of you fellows would come to my hotel and fix its electric elevator. It isn't working." His auditors left, insulted. In a week they came back, saying: "We get your point." It is a lesson the Russian in many walks of industry deserves. He can see

a great need, plan for it magnificently, and then forget the details or try to go too fast. Beyond doubt some of the great plants now being built are far ahead of any demand in the section in which they are placed. The officials admit this and then tell you just how many large towns will spring up within five or ten years to absorb the surplus.

Wasteful, the American engineers call this policy. The Bolshevik smiles. He knows that this is not a case of making private profits; that his government is bound to care less whether a certain factory makes money than would a private man risking all his capital. The Bolshevik government can look at the problem as a whole, pool the profits and losses of the nation's business. It can afford to take losses if by doing so it meets pressing needs and provides for the future. And it must do things no private employer would think of undertaking. We drove one day into a great new plant. The factory buildings were hardly begun, but there stood impressive apartment houses for workers, each apartment with all modern equipment. "Cart before the horse," said an American fellow-traveler. "The idea of putting up such buildings before you find if the plant will pay! We'd put our men in huts till we found out." A Russian nearby looked amused. Later he said: "That's just the difference between your system and ours. Our creed is to consider workers first and profits next. We could never ask our workers to live in shacks." An American engineer employed in this plant agreed with the Russian: "They are doing it right," he said. "They'll get their money back in goodwill and greater efficiency."

Undeniably there are great dangers in this hasty pouring of millions of rubles into plants with no guarantee of profitable operation. There is further danger in that the Soviet officials are on both sides of the fence as manufacturers and consumers, and their own bookkeepers to boot.

Huge losses might easily lead to the entire collapse of the system. That is why it is being said that if the Soviets last through the next four years, they will hold Russia for generations.

Everywhere in Russia there is feverish activity. The greatest lumber port in the world is nearing completion at Leningrad. A merchant fleet of 600 steamers is being built. The Dneiper power plant is the largest in the world. The railroads are being amazingly modernized. All in all it is a far-sighted, magnificent effort to bring relief to 150 million souls.

Note: This is one of a series of six articles by Oswald Garrison Villard appearing in The Nation.

The Goddesses in Our Midst

Condensed from The North American Review (July, '29)

R. Le Clerc Phillips

CERTAINLY there are goddesses among us here in America, although I know of none elsewhere. I allude, of course, to the young unmarried girls of this country and the strange, entirely American attitude toward them — girls so immature mentally that sensible conversation with them is altogether out of the question; girls so ignorant of reality that they actually believe their life will be a fairy story; girls so egotistical in their pride of youth that even the egotism of young men pales when confronted with it.

Girls have some value everywhere, even in such regions as Papua and Patagonia. But among civilized races it is only in the United States that they are prized for what they are more than for the promise of what they will become when time has matured the rawness of extreme youth.

Visiting foreigners never cease to comment on the phenomenon with astonishment. Not that these visitors are always severely critical of the young American girl; but invariably they express surprise at the immense amount of attention she receives. Take, for instance, the case of the late W. L. George, who was considered an authority on women — whatever that may be. In his *Hail, Columbia* he says:

"One of the most interesting features of the American woman question is the supremacy of the girl. In Europe the girl hardly counts at all. . . . It is a remarkable thing in an American summer hotel to see the owners of automobiles filling their cars with young girls, while the young matrons are left behind. Yet the young married woman is far more attractive, far more amusing than the bread-and-butter miss. Everything goes to the girl — money for college, for training, for social consideration; she is encouraged to waywardness, as if men took delight in her freshness, her mischievousness, and enjoyed her youthful petulance. . . . I do believe that a certain hardness must afflict the American girl, owing to excess of good things which she enjoys very early and very easily."

Many other European writers have agreed, in substance, with this dictum.

Let us analyze the assets and, daring though it may be, also

the inadequacies of these modern goddesses.

The first and chief asset of our goddesses is, beyond all question, their physical freshness — the exclusive prerogative of youth which no beauty shop can duplicate. This freshness confers a smoothness of skin, a brightness of expression and, as a rule, a slenderness of body of which it would be absurd to deny the value to a woman. All men admire these things, and, as a consequence, all normal women desire to have them, whether they acknowledge it or not. Let us, then, admit at once that the physical freshness of the goddesses is no mean asset.

I have said that it is the first and chief of their assets. What are the others? Frankly, I do not know. I have cudgelled my brains to find them, but I cannot — unless we count in high spirits. Of course, no one denies that high spirits are an asset when controlled by a knowledge of life and an acquaintance with reality. But these are precisely what young girls lack, and lack in a very marked degree. What else is there, then, that young girls have and others have not?

Being unable to answer this question, I turn to the inadequacies of the goddesses. Who will deny that young girls, taking them *en masse*, are really very insipid? Very young men may not find them so; but, then, very young men are none too pungent themselves. If it were not for their smooth skins, their lively expression and their slender figures, is there any intelligent man who who would go out of his way to seek the society of the goddesses? I doubt it. For, deprived of the pleasure of gazing on physical beauty, one is driven to fall back on conversation. And what do the goddesses talk about?

I once heard a cantankerous middle-aged man exclaim, after having been forced to listen to an unusually terrible exhibition of conversational inanity on the part of a self-satisfied young goddess: "I know of only one creature sillier than a girl and that is a sheep. The girl may show more sense in getting out of the way of automobiles, but from the point of view of conversation, the sheep is preferable. Its bleating is at least negative inanity."

No doubt he was unduly harsh; but no dispassionate person of either sex will pretend that the conversation of girls is interesting except in rare instances. Usually it is merely an exhibition of vanity and self-complacency.

Moreover, the vanity of the modern goddesses rests upon no accomplishment whatever. They are today probably a good deal less accomplished than their grandmothers, who could cook and sew and embroider. True, the modern American goddess is

more adept at outdoor sports; but her grandmother probably danced much more gracefully. Surely graceful dancing is a more valuable accomplishment than outdoor sports, in which women must always be defeated by men, while in grace they may, if they choose, reign supreme. And let us remember that anyone can smoke cigarettes; but not everyone can cook a first-rate dinner.

The chief moral shortcoming of our deities is their gross materialism. They are on the make. They expect men to pay, pay, pay. And the men pay, pay, pay, and do not seem to realize that they are being exploited. In Europe a well-bred girl does not dream of consistently utilizing a man to pay for meals, movies, theater seats. If she does, it indicates that she hopes to marry him. But the American goddesses seem to think it the duty of men to pay, no matter how little they receive in return.

To understand the situation, it is necessary to glance at the position of young girls in Europe. The Frenchman — a highly sophisticated creature if ever there was one — has never found young girls very interesting. The married woman has captured his attention both in real life and in literature to an infinitely greater degree than the *jeune fille*, whom he finds insipid and intellectually uninspiring. In England, the young girl has more leeway than in France. Nevertheless, to the American girl the English girl must always seem a repressed, somewhat downtrodden creature, just as to the English girl, her American contemporary must seem an over-bold young person who needs to be taken down a peg. As for the rest of Europe, in no part of it does the young girl attain to anything approaching the position she holds in America.

We may find the supremacy of the goddesses inexplicable, even though it is a fact. What of their future? Time does not stand still even for goddesses, and in a few short years they will find that they are either married or faded. In either case, they will be goddesses no longer. As to what they will be, it is better not to hazard an opinion. For with their youth gone, what will be left? Nerve, I suspect, but what beside? They have not deigned to cultivate the old-fashioned accomplishments of their grandmothers. Their intellectual interests have been a little meager, to put the case politely. They will have no resources within themselves, and none of the adulation upon which they have flourished. I fear that many of the carefree young women of this age will in later years become the most discontented old women our race has ever known.

A Billion Wild Horses

Condensed from the Technology Review (November, '29)

Stuart Chase
Author of "Men and Machines"

THE modern man of science is normally so engrossed in his specialized line of research that he has little time to step aside from his activity and ask what his work is doing to the world. He perfects, let us say, a teletypesetter whereby the labor of some thousands of linotype operators is saved. The newspapers run congratulatory editorials, banquets are held, honors bestowed. But what about the linotypers tramping the streets? Or he invents a poison gas against which no mask furnishes protection. His government welcomes him with open arms. But what about some millions of noncombatants in the next great war? Or he develops a mechanically beautiful outboard motor, and lo! day and night becomes as hideous on lake and bay as under the elevated at Herald Square.

It is doubtless presumptuous for a layman to rush in where the priests of science themselves have seldom trod. But some of us want to know not only what science is doing to things, but what it is doing to human behavior patterns and to social relationships; and what it proposes to do to them in the future. We try to get together not only the physical fact, but the reaction of that fact on the lives of men and women. We want to know what the engineers are really up to, and what kind of joy-ride they are giving this planet on the back of a billion horsepower.

We live in the Power Age, or perhaps better, the Age of Energy. We have all sorts of dandy little jiggers which we never had before. We have tortured time and contracted space with unheard-of velocities. Many of us live at a speed that comes close to the limit of biological tolerance. Are we any happier?

Before we approach that puzzle, let us consider a few preliminary questions. What is a machine? How does it differ from a tool? How did the Machine Age start; why did it start? Is anybody controlling the process of mass production, or is it running wild in an orbit of its own? Is social standardization a fact, and if so, is it any worse than the standard taboos of other cultures? Is it more depressing to be a Babbitt or a member of an East Indian caste?

Obviously I cannot hope to compress into this article what it

has taken me a whole book to write. Some of these questions I have, I believe, answered flatly; some partially, some not at all — the supporting data never having been accumulated. I have tried to follow the trail of the billion horses, but they are a wild, ornery lot. A tentative balance sheet may, however, be struck in the following terms, indicating the positive gains and positive losses, humanly considered, of the Age of Energy.

Effects manifestly good:

1. The life-span of modern peoples has grown longer, thanks to medical science.

2. Higher living standards in terms of material goods have been secured for a larger percentage of the total population than has ever before been obtained.

3. The shrinkage of space brought about by machinery is demonstrating more forcibly every day the essential social and economic unity of the world. (While the logic is inevitable, the acceptance thereof is still remote.)

4. Hours of labor have decreased in recent years. We still work harder and longer than have many former societies with a hundred holidays or more a year (Germany in 1400, for instance), but if the machine were encouraged to function as a true labor-saving device, we could undoubtedly do better in this respect.

5. Superstition is declining. The wayfaring man is somewhat readier to ask: "What makes this thing act the way it does?" rather than fall on his face before unknowable mysteries.

6. Certain machines, particularly the automobile, have tended to expand the ego, promote self-confidence, and a sense of power in persons and classes.

7. The mechanical operation of industry is beginning to introduce a "philosophy of fatigue" whereby elaborate tests determine just how long a given individual can work without fatigue poisons damaging his output. Done with an eye to profit, this still remains one of the most merciful roads which the race has ever taken. The process is still in its infancy.

8. Cruelty as a social phenomenon has undoubtedly decreased in the last century. Who used to weep for famine sufferers in China? Now the cable and the camera bid us weep in strict order, reaching for a check book the while. A citizen of Rome, one suspects, would have regarded the Red Cross as so much moonshine.

Effects manifestly evil:

1. The menace of mechanized warfare grows daily more ominous — particularly in respect to the airplane, capable of three-dimensional attack.

2. The tenuousness of connection and balance in the interlocked industrial structure also grows. Any crisis — a strike — may seriously upset the whole social equilibrium.

3. Specialized tasks are sundering the ancient trinity of work, play, and art, and thus tending to upset an admirable, and perhaps biologically necessary human equation.

4. Specialization has enormously promoted the importance of money, making it the *sine qua non* of modern life. This leads to a serious confusion

of values, in that the symbol displaces the underlying reality.

5. Workmen, clerks, even executives, are displaced by machinery faster than they can be absorbed in other occupations.

6. Mechanization has led to cities so congested that it gives little pleasure to live in them, or to contemplate what will happen if the pressure becomes much greater. By and large the subway is an engine for "pumping us back and forth from places where we would rather not live, to places where we would rather not work."

7. The impact of the machine on nature peoples has normally been an unrelieved story of progressive degeneration. Firearms, factory rum, and ready-made pants — with their concomitants — have corrupted every littoral upon which they have landed.

Effects both good and evil:

1. The world's population has doubled in the last 100 years, due more to the machine than any other factor. This pleases militarists more than it does philosophers.

2. The machine has brought the independent, self-supporting community to an end. This makes for greater productive efficiency when everything is going well — and for greater helplessness when everything is going ill.

3. The machine has deprived the housewife of her sometime skills, and so forced many women into futility and neurotic unrest. It has also forced women into the wage-earning class and thus greatly increased the independence and the dignity of the sex as a whole.

4. The machine has ruthlessly destroyed a whole age of art, but is busy creating a new age, which already in architecture, in design (say that of an airplane) has achieved distinction. The process furthermore is by no means complete; give the machine a few more years.

5. The quality of certain goods has undoubtedly declined as compared with the hand-made article, but the quality of others has improved. If the machine is kept within its technological limits, it can provide a whole new budget of useful, durable and even beautiful products. Regard an ocean liner or a well-built motor car. We also note the beautiful mechanisms employed to turn out terrible trash — for instance, the broadcasting control board, with a fourth-rate politician before the microphone.

6. When the workman left his cottage for the factory, he lost his economic independence. So long as the owner of the factory has no interest in labor save as a commodity, the workman is distinctly worse off than before. If, however, the factory is run on the principle that, in the last analysis, it is for the worker that the wheels of industry are principally turning, he may well stand to gain more than he has lost.

There is some overlapping in the above lists, but it is inevitable. The reader must draw his own conclusions, but as I study the schedules, I incline to the belief that machinery has so far brought more misery than happiness into the world.

Mechanized Movie Studios

Condensed from the Theatre Guild Magazine (December, '29)

Alice Tildesley
Hollywood newspaper writer

TALKING pictures are hardly more than two years old. A long time ago — say 20 months — all talking scenes had to be made on "sound stages" lined with sound-deadening material, closed against air as well as noise, and made tropically hot by batteries of lights. The lights used to hum and crackle, spoiling many tense moments on the dramatic celluloid. Cameras, in soundproof, immovable booths, could record the action in a restricted space only, thus losing the advantage of the silent pictures' infinite variety of background. The microphones, in order to pick up the dialog, used to be hidden in book-ends on tables in the scene, in ornaments or lamps, or suspended on invisible wires behind small pictures above the actors. As a result actors were constantly forgetting their lines in the effort to face the elusive instrument, or forgetting the mike in the emotion of a scene.

"Couldn't hear Miss Costello when she was struggling with Mr. Nagel," the mixer would report, "and when Mr. Robards banged on the table, it sounded like barrels rolling down stairs." (The mixer is an engineer who listens to the scene through a loud speaker, and strengthens or weakens certain sounds to give the right effect.) Miss Costello must forthwith aim her imploring: "Let me go!" at the mike above her instead of at the young man, and Mr. Robards must withold the force of his blow.

"In one scene, we found it impossible to record what the girl said as she lay sobbing in her lover's arms," remembers Jack Warner. "We experimented all day in vain, and at last put the mike inside the lover's coat, so that the girl could moan into it. The mike got her voice, but it picked up the man's heartbeats — and besides, he had asthma!"

Great improvements have now been made. The lights have been made practically noiseless, though they are still so hot that on some sets only ten minutes can be allowed for filming before all the windows must be thrown open to avoid suffocation. Cameras have been equipped with quiet fiber gears and heavy robes, for outdoor scenes, to help stifle the clicking. Portable "camera bungalows" have also been constructed and move about on small

trucks. These bungalows are known as "Lizzies" and the order "button up Lizzie," so often heard, merely means close the cameras for action.

The microphone has been made both sturdier and more sensitive. But it is still an instrument with but one ear and no brains. Human beings hear with their brains through two ears. If we listen to a conversation, we put our attention on what is being said and do not notice small noises. But to the mike it all sounds equally important. Therefore, a kind of fishpole has been devised, by means of which a property man moves the mike about, out of range of the camera, to pick up sounds as directed. The mike and its whereabouts are none of the actor's business now.

At the Warner Brothers studio, 35 talking pictures can be made at one time, and the equipment can be so interlocked that sound from all stages can be recorded on one wax (Warner's record all their sounds on wax records), or 35 recorders can work on one picture and combine the results later.

In the studios which record sound on film, experts have learned to read the black and white striations that represent sound on a film. An actor in a Paramount picture repeated a word by mistake. This spoiled an expensive scene, and the director was downcast till an assistant came to his rescue by tracing the word on the film and marking it out with a crayon. When the scene was run in the projection room, there was a slight but natural pause where the word had been, and a retake was avoided.

Most studios now maintain a library of "stock sounds," just as they have always maintained one of "stock shots" of floods, fires, parades, battles, storms, and the like. Whenever a company makes a crowd sequence, a war, water or other difficult sequence, it takes a supply of "wild shots" which may be used later. "Stock sounds" likewise are placed at hand for future use.

In early talkie days, voices were sometimes doubled, but this is seldom, if ever, done today. An actor must learn to use his voice or leave the studio. It is easier to double a song than to double a conversation, for the actor who is mouthing to the song the unseen Caruso sings is assisted by music in keeping time, while he who attempts to match his lip movement to words has tempo, inflexion and spacing to contend with.

A clever bit of juggling was done in a First National picture, in which Jack Mulhall played the rôles of two brothers, one a crook and one a policeman. Jack carried on the conversation with himself, arrested himself

and took himself to jail. The photography was managed in customary double-exposure fashion, half the lens of the camera opened at a time, with positions of characters in the scene carefully marked so that when the film was run again the two halves of the scene would match. But Jack had also to perform the difficult feat of talking first as the policeman and later as the crook, so that the separate recordings would sound, when combined, like a conversation.

Ghosts have been screened many times in the days of the silent pictures, but *The Green Ghost*, directed by Lionel Barrymore, was the first apparition to become vocal. By a system of prisms and lenses, reflections of actors outside the actual scene were projected on to the set; characters on the set seemed to be walking through these ghosts or were uncannily visible through them. The sepulchral voice appropriate to a spirit was achieved by the actor speaking into a huge horn instead of into the mike.

"In the three years since we began talking picture production, we have developed as rapidly as the entire picture industry did in twenty," declares Jack Warner. "And numbers of new improvements are coming along. There is the new wide screen for use in projecting a three-dimension picture. That will mean another revolution when perfected.

"Perhaps our greatest progress has been made in color. Many companies are experimenting with color and there is room for everyone, for I feel that color is the coming thing. One drawback to making color productions, however, is the tremendous number of lights that must be used. For one scene in *Sally*, with Marilyn Miller, we used 1500 lights, and 97 is a fair average for a smaller scene. Imagine the intense heat engendered by this array of arc lamps, on a close set during August.

"Among our planned improvements is a Mazda system of cold lighting, a system that does away with all noise as well as heat.

"All recording used to be done at the studio. If a company went on location, they recorded over the telephone to the recording rooms. This occasioned delay both in getting the line and in keeping it clear, also in receiving the playback from the studio" — (a playback is the running of the disc just recorded so that the director and actors can listen to the scene made) — "so we began to construct portable talkie equipment for location work. We now have eight portable machines ready to go anywhere."

In keeping up with the microphone, the moving picture industry must rival the beanstalk of the celebrated Jack and hit the sky before night.

CAPTAIN BRUCE BAIRNSFATHER (p. 773) artist and journalist, was born in India in 1887. Prior to the war he served in the Warwickshire Militia. Later he became a civil engineer and at the outbreak of the war joined the Royal Warwickshire Regiment with which he went to France. After two years of service he was attached to the War Office for work abroad. His books include: "The Better 'Ole"; "Bullets and Billets"; "From Mud to Mufti"; "Old Bill." He has also made illustrations for several war books. Just at present his work is appearing in the American humorous weekly "Judge."

DAVID HERBERT LAWRENCE (p. 801) was born in Nottingham, England. He is a graduate of Nottingham University and is the author of many novels, several plays, a number of volumes of poetry, and numerous essays. His latest book, "Lady Chatterley's Lover," has provoked much discussion both in England and America.

HELEN KELLER (p. 813) was born in Tuscumbia, Alabama, in 1880. The traditions of her family go back to revolutionary times. Miss Keller has been blind and deaf since the age of 19 months. With the aid of her devoted teacher Anne Mansfield Sullivan (Mrs. John Macy), she learned to read, write, and speak, later attending Radcliffe College and graduating from that institution in 1904. She is a lecturer and writer and is now raising a $2,000,000 fund for the American Foundation for the Blind. She contributes to various magazines and is the author of many books.

DOROTHY THOMPSON (Mrs. Sinclair Lewis) (p. 820) is a free-lance writer. She has been publicity director for the up-state New York Woman Suffrage campaign, social worker, foreign correspondent for the Philadelphia Public Ledger and the New York Evening Post, and Chief of Central European Service from 1924 to 1928. She contributes to American and British reviews and has written a book, "The New Russia."

(GEORGE) WARWICK DEEPING (p. 826) is an Englishman who studied medicine and practised as a physician for a year, after which he abandoned the profession for that of literature. In all he has written some 35 books, the last three of which are "Sorrell and Son," "Doomsday," and "Kitty." His favorite forms of recreation are tennis, golf, motoring, metal work, cycling, gardening, carpentering, and all kinds of outdoor work.

JAMES TRUSLOW ADAMS (p. 832) is the author of several books on the early days of our country which have given him a place among leading American historians. His "Founding of New England" was awarded the Pulitzer Prize in 1922 and the five volumes with which he followed it have all been listed annually by the League of Nations committee as among the 40 most important books published in the United States in their respective years. During the war Mr. Adams served both in England and the United States as a captain in the Military Intelligence Division.

MRS. REGINA J. WOODY (p. 835) was Nila Devi, prima ballerina at the Folies Bergere and the Moulin Rouge in Paris, premiere danseuse at the Municipal Theater in Algiers; she played in the old New York Roof Garden and in the Martin Beck theaters, besides having been in vaudeville in Budapest. She is now devoting herself to her family.

R. Le CLERC PHILLIPS (p. 856) was born in England, educated mainly in France, and has lived for a number of years in the United States, engaged in research and editorial work.

STUART CHASE (p. 859) is the president of the Labor Bureau, Inc., of New York. His latest book is "Men and Machines." For years he had been studying one of the fundamental problems of the day: What, exactly, is the machine doing to us?

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